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ORIGINAL ARTICLES.

THE SYMPTOMS AND TREATMENT OF VARIOUS TYPES OF APPENDICITIS.*

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A correct interpretation of symptoms of any disease opens the way to its rational treatment, or points to limitations; though in carrying out such treatment on radical lines the remedy may impose greater dangers than those which succeed in consequence of the disease itself. This is about the situation in some types of appendicitis.

In pathologic lesions involving the appendix, or neighboring organs lying contiguous with it, an accurate diagnosis is often attended with great difficulty; but, assuming that the clinical picture of inflammatory or degenerative changes is quite unequivocal, of what avail is that unless we are able to determine the type, intensity and progress of the lesion?

Everyone who has had much experience with the disease under consideration, knows that there is none, perhaps, so often obscured by vague undefined and misleading symptoms. Its progress is not fixed by regular stages; for in some we will observe a slow, tedious advance, with an abrupt, brief convalescence. In others, again, all three stages are apparently crowded into one, when in from 24 to 48 hours after its outset it has run its course to death or recovery. Evidently, then, with a malady presenting such an unstable clinical course, a reliable definite symptomatology is not to be expected. Some few authorities would have us believe, however, that the category of symptoms is constant, and that we may follow the course of the malady with a large degree of precision and accuracy. This, certainly, is an erroneous view, not generally shared by the profession or those whose experience is the largest.

Notwithstanding this rather chaotic state of the symptomatology of appendicitis, there are pathological changes occurring in the course of the average case and giving rise to phenomena, a correct interpretation of which will go far in pointing the way to a rational therapy.

To these I direct attention, dividing the signs and symptoms into first, those of a constitutional character; and second, those which are localized.

*Read before the Harlem Medical Association, New York, Nov. 6, 1895.

Constitutional Symptoms.

The disease known as appendicitis, when dependent on pathologic changes, arises in consequence of two correlated factors. The first operates through the blood as malnutrition, deranged tissue metabolism and local enervation; all concentrating their action through some unknown influence over a localized area. It is immaterial whether, in this instance, this succeeds through the action of the tubercular or other dyscrasia, the impaction of fæces or otherwise, the effect to reduce or destroy the vitality of the involved tissues is the same in all.

This is the preliminary stage, which not uncommonly is exceedingly insidious in its advent. At this period, when the vital forces of resistance in the affected parts are at a low ebb, a new element of destruction takes the field and we have an invasion of pathogenic bacteria. The bacterium-coli, a germ always found in the healthy lower intestine, is stirred into new activity, and, in some cases with alarming rapidity, lays waste on everything it seizes. This is not invariable, for I have, in two cases, found only the tubercular bacillus and staphylococcus.*

Probably, not until the infective process commences do we have decided constitutional disturbances.

Eckhorn has shown that of the numerous varieties of bacteria in this disease, the bacillus coli holds a foremost position; while Barbacci, of Florence, alleges that more slowly growing forms of microbes, and less conspicuous, may also cause perforation of the appendix.

Pain.

This is the most constant of all symptoms. Inflammation has commenced. Where? In the mucous-coat, or over the serous investment? Pain is generally diffused, through an extension of the infective elements by way of the mes-appendical lymphatics, over the omental apron and the parietal peritoneum. Peritoneal pain is well known to quickly exhaust strength and to violently disturb the system. The heart is weakened and the pulse quickened. There may or may not be a considerable elevation of temperature. This is not usually pronounced unless the case is one of an acute type and in the advanced stages. Disturbances in the alimentary canal set in early, the appetite is lost, and retching or vomiting commences. Diarrhœa is common in the early stages in many cases, though constipation from paresis of the intestine is most common as the disease progresses, and is always present in serious cases. Incessant vomiting and unquenchable thirst invariably stamp a case of grave character.

Local Symptoms.

Local symptoms will of course depend on the nature and extent of local changes. Mild catarrhal appendicitis has indefinate symptoms, and is one phase from which, probably, no one who has a pervious appendix escapes infliction at some period of his life.

In the severe form constitutional symptoms are more pronounced. By an extension outward through the lymphatics, comes the second type, designated peri-appendicitis or localized appendicitis, in which the pathologic changes have not extended beyond the cæcal area. The third variety, is that in which we have localized ulceration of the appendage with perforation. Here, we may have first, a walling off of the appendix from the general peritoneal cavity by adhesive inflammation, or, second, a sudden perforation, without this provisional feature.

In nearly all types we will find, on palpation, that all the areas of the abdomen are abnormally sensitive, with marked soreness on deep pressure over the right iliac region. When inflammatory changes are localized, a mass will be detected, of varying density, volume, situation and outline, in the right iliac fossa. In this type we are confronted by two formidable difficulties in attaining that precision in diagnosis so essential for the adoption of judicious treatment; for, very often the preservation or loss of our patient's life will depend on our line of action at this juncture.

The first important question will be,—Is this exudation thrown out about the diseased appendix, serious or fibroplastic; or, is it purulent?

Second,—Is it attended with perfora-

*Since the above was written, Oct. 25th, I have operated on a case in which the bacillus-coli-communis was absent though tubercular bacilli were found in abundance.

tion? For it should be remembered that we will find perforation in a considerable number of these encysted cases.

If we were in a position to accurately estimate exactly what phase of the pathologic process lay before us, then the problem is solved. But we cannot.

We may group together and carefully weigh all phenomena, and try to strike a balance one way or the other. Nevertheless, the elements of doubt and conjecture still remain.

In the fulminant type attendant with early perforation into the peritoneal cavity, the abdomen is enormously distended and the diaphragm is crowded far up into the thorax, thereby seriously embarrassing respiration. The entire intestinal tube is paralyzed. The inflamed bladder wall is powerless to expel its contents. Our patient has general septic peritonitis, with all that dreadful condition implies.

The common, ordinary types of appendicular inflammation, usually may be recognized without difficulty; though it is well to remember that there are various lesions or derangements of function, which possess many features in common with them. The most frequent is typhlitis, or peri-typhlitis, from impaction of fæces at the head of the colon. Also the radiating pain of a renal colic, involving the right ureter. I have seen a case of obstruction of the cystic-duct of the liver with great distension of the gall-bladder, mistaken by two practitioners for appendicitis.

Pericæcal suppuration is quite impossible to differentiate from the cæcal lesion; and, it is quite unnecessary to add, that in child-bearing women with a tendency to movable kidney or inflammatory affections in the upper pelvic organs, accurate diagnosis may be anything but simple. What tends, besides, to render this difficult, is the deviating, irregular site of the appendix, and the tendency of the cæcum to swing far away from its moorings by an elongation or a relaxation of its posterior connective tissue ligament, Through this typical adjustment, the anatomical relations are greatly altered; and the cæcum may make excursions upward under the liver; inward beyond the median-line, and downwards into the pelvis. On three occasions I have found the cæcum passing out through the right inguinal canal, in hernia. In one case, in a boy, the appendix alone came down through the inguinal canal.

From the foregoing, which includes only the more general features of the various pathologic lesions, morbid-anatomy and deviations of typical arrangement, it is obvious that as far as typographical-anatomy, or fixed land-marks, are concerned, we have no rules to proceed on for the avoidance of error or definitely establishing diagnosis in a considerable proportion of cases.

Dr. Chas. McBurney, to whom we are indebted for establishing the operation for appendicitis on a scientific basis, believed that a hypersensative area, occupying the centre of a line running from the anterior spine of the ilium to the naval, pointed to inflammation of the appendix. In justice to this deservedly eminent surgeon, it should be understood that he never attached the importance to this — designated by Stimpson the "McBurney point" — that others have only given it as one of the aids in reaching diagnosis in ordinary cases. It certainly is indefinite, for in many morbid conditions in no manner connected with the appendix, deep pressure here will evoke pain. And, *per contra*, in not a few of the worst cases of ectopic-appendicitis this sign may be wholly wanting. Gage, of Boston, concludes that this sign is valueless, because the position of the appendix is so changeable. Dr. George Edebohls, of New York, believed that surface palpation of the appendix was possible, and has reported instances confirming this view.

Not long since, it was my privilege to see one of the most celebrated surgeons in this country perform an operation over the left iliac fossa.

He expressed doubt as to the utility of palpation, though he said that the case about to be operated on, evidently had a very much thickened appendix; and he believed it could be readily outlined through the abdominal wall by the finger over the integument. Removal of the organ, which was exceedingly small and atrophied, proved that he had been deceived. It does not appear, from current surgical literature, that surface palpation has proved a reliable criterion or is generally practicable.

Rectal or vaginal exploration affords much assistance, especially in the female sex. But in order to insure the fullest measure of success with it general anæsthesis may be necessary to secure full relaxation of the abdominal muscles, and spare the patient pain.

Constitutional Symptoms in Relation to Local Changes.

Having outlined those symptoms and signs made manifest from disturbances in the system, and the local changes, it now becomes necessary to demonstrate those phenomena dependent on the latter, as expressed through constitutional disturbances. For a correct interpretation of their significance will often determine our line of action without proceeding to the seat of lesion.

Clinically, we may group appendicular cases into three classes, basing this division on the symptomatology belonging to each.

First, we have what, perhaps, may be called *walking* cases; those which pursue so moderate a course that the person attacked may attend to his ordinary business or occupation if this be light or sedentary. At all events, there is no severe constitutional disturbance.

Second, Those in which pyrexia, pain and general weakness compel one to take to bed. In this class, unless inflammatory changes advance to suppuration or perforation, the constitution is not seriously disturbed and, there is no ground for serious apprehension.

Third. In this class grave symptoms warn us that we are in the presence of a formidable malady, that serious local changes are taking place, and that, probably, general-peritonitis has set in. Agonizing pain, great thirst, vomiting, a quick thready pulse, sunken features, and great despondency marked by failing of all the vital powers, combine to give these cases a most alarming aspect. My own experience in this class has led us to place but little reliance on the temperature. Arterial depression or augmentation is the safer index. In this type we have a grave condition succeeding from two quite independent causes, either one in itself enough to cut off life. First, auto-toxæmia, and, second, shock. Sometimes the latter strikes with such force us to cut off every possible hope of recovery.

Treatment.

The treatment of appendicitis until about twenty years ago was exclusively medical, or tentative. Its pathology was not correctly understood. The mortality was necessarily very large in the diffusely suppurative or perforated cases.

Dr. Henry B. Sands, in 1881, accidentally came upon a perforated appendix while operating for a case of iliac phlegmon. He cut it away and his patient recovered. Then came the mad rush for appendisectomies, and not a few surgeons claimed the domain of the appendix as exclusively their own. In their intemperate zeal to put into effect their theories, they have, without question, often inflicted needless mutilations by the indiscriminate and ill-timed use of the scalpel, and have raised the mortality in a class of cases medical therapy might have spared. General statistics, gathered from numerous and widely-spread sources, show that about 80 per cent. recover by the aid of medical measures alone. In the other 20 per cent., judicious and skillful surgery alone can avail.

As the subject of treatment is a very large one, only a few general observations will be offered on the management of the less serious, reserving allotted time for those which legitimately come under the domain of surgery.

It may tend to direct us in the right course, to learn the views of some of those whose position in the profession gives weight to their utterances.

Osler says: "There is no medicinal treatment of appendicitis; there are remedies which will allay pain, but there are none in any way capable of controlling the disease. Operation is indicated in cases of acute inflammatory trouble in the cæcal region, whether a tumor is present or not, and when by the third day the features of the case point to a progressive lesion. The mortality under these circumstances are very light." (Osler, *Principles of Medicine*, P. 442.)

D'Arcy Power, on the contrary affirms that, "the prognosis in cases of simple inflammation of the appendix is good, for the vast majority recover under medical treatment; though, when per-

forative inflammation occurs and the general peritoneum is involved, death is quite certain without immediate laparotomy." (*Surgical Diseases of Children.* D'Arcy Power, p. 214.)

De Costa has "seen a large number of catarrhal cases cured by medical treatment; but when the disease advances to pus-formation, surgical treatment is in order." And he adds that, "pus may be recognized, rather by increasing local tenderness and persistant colicy pains, than by temperature or pulse."

Jonas believes that the majority of cases of appendicitis are non-suppurative and amenable to medical treatment. McRea, of Atlanta, Ga., admits that there is no question in his mind, but the majority of cases of appendicitis get well without getting into the surgeon's hands.

Medical Therapy.

In all cases in their earlier stages, we will do well to thoroughly clear the lower bowel, the colon, by repeated injections of warm suds and olive-oil, until the part of the canal is quite clear and we are sure that the colon is well unloaded and the cæcum emptied.

The patient should be placed on low, liquid diet, easy of assimilation. Milk though highly nourishing is too rich and difficult of digestion, though milk-serum, or whey, may be freely given. In all cases there is more or less thirst; there is a demand on the part of the system for fluids for a tonic element is circulating through the blood.

Under these circumstances, it strikes me that Dr. McGillicuddy's "internal sterilization of the tissues" may be adopted with decided advantage. It consists in giving the patient copious libations of sterilized water, either very warm or cool, as is best borne; it being assumed, that the blood and secretions are thus dilated, and that the toxines are washed away or are thrown off by the emunctories. I would introduce fluid at both ends of the alimentary canal, and press it in all appropriate cases until mitigation or complete subsidence of symptoms ensued. Water here acts as an eliminator and as a laxative the only one, I believe, safe in appendicitis.

Should we administer morphine in these cases? In my opinion it is cruel and inhuman to withhold it. And the index for its limits should be the relief of pain. Abdominal pain is always most agonizing and depressing. Morphine buoys up the spirits, and in tonic doses, steadies and strengthens the circulatory apparatus. "But," it is said, "it masks symptoms." It certainly will suppress pain.

It is unfortunate for the patient, however, if his medical-attendant ignore all other phenomena except this *one* of neural origin. Local applications are most potent agents as analgesics and deterrents. Hot poultices often give great comfort, and it is probable, by the effect on the peripheral vessels and nerves, favorably influence inflammatory action particularly over the cæcum. Of late years ice has been substituted in large measure for heat as a topical application in appendicitis. It seems to give great relief in some cases, although there are many theoretical objections to its employment. Cold, certainly is a most intense depressant; it contracts the peripheral capillaries and in this way augments internal congestion. It must, likewise, retard or altogether arrest resorption of imflammatory deposits; and if long continued rather augments the tendency to gangrene of the appendix.

The active element supreme here as an etiological factor, is germ infection. Have we any safe medical agent which may arrest or possibly extinguish it, thereby refuting Osler's dictum? It is my conviction that we have. Mercury is admittedly a germicide of great potency. Judiciously administered in this disease, it is prompt and decisive in action. Administered early, to my mind it has proved almost a specific. Many times have cases, referred to me for operation, yielded most happily to this drug. My method of administration is, always, by inunction, From one-half to one ounce of mercurial ointment is well rubbed in over the right iliac fossa when urgent symptoms are present. In many, its affects are almost immediate. The pain diminishes, tumifaction subsides, paresis of the intestine passes, and, generally, in twelve hours or less the bowels run.

An approximate knowledge of the

various complex pathologic-processes, so commonly lodged in the appendix, and the courses which the various phases run, at this point will aid us in determining just what the limit of medical or tentative treatment should be.

The types of inflammation which occur here, in their order of frequency, are, 1st.—*Catarrhal;* 2nd.—*Fibro-Plastic;* 3rd. —*Sero-Sanguinous;* 4th. —*Sero-Plastic;* 5th.—*Gangrenous.*

The first four, in those otherwise of sound constitution, usually end in spontaneous recovery, or in recovery accelerated by the aid of specific medication alone.

In the first, proliferative catarrhal inflammation obliterates, partly or completely, the lumen of the appendix. In the second, fibro-plastic effusion on the surface, welds it to a neighboring organ, and leads to atropic changes through diminution of the blood supply. The third, or sero-sanguinous, though attended with severe symptoms may be arrested when the deposits are resorbed. The fourth, is probably a transition from the third; the septic elements of infection have acted on a ferment. as they do sometimes in serious effusions of the pleura, with resulting suppuration.

Can this material when it is encysted about the appendix, undergo disorganization, or chemical changes and absorption, without peril to life? When in small quantities and not with associated perforation, it undoubtedly can. A pyogenic membrane, wherever situated, possesses the dual property of secreting and absorbing pus. When those pus formations are treated successfully by aspiration some residue of purulent elements must always remain, yet recovery is always prompt after the greater part is thus drawn off. To claim that the prompt and skillful administration of medicine in this disease, is inert or impotent, is to deny its utility in any organ or structure in the body.

For the fifth, the gangrenous perforative type, judicious surgery should be our sole reliance.

[TO BE CONTINUED.]

MEDICAL PRACTICE IN THE SWAMPS.

MALARIAL HÆMATURIA OR CREOLE YELLOW FEVER.

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Of all the diseases, with which the practitioner in the Mississippi Delta has to contend, for fatality none is equal to Malarial Hæmaturia. With a mortality of fully fifty per cent., it is not a matter of surprise that it is held in dread fear by the inhabitants of the region in which it prevails. From the evidence of physicians who have had abundant opportunities for forming an intelligent opinion of the clinical phenomena of the two maladies *genuine* yellow fever bears no relation to it in malignancy. Winding its folds insidiously around its victim, who, at the time, goes about his affairs perfectly unconscious of impending danger, with only a slight chilly paroxysm occurring daily for a short time to warn him of his peril, he considers his sensations not worthy of attention and words cannot express his horror when, at the termination of the fifth or sixth exacerbation, he realizes from the condition of his urine changed from a normal color to a dark coffee hue that he is victim of the frightful monster. In a few hours, another chill follows more severe than the preceding one; the liver becomes tender to the touch, and hepatic dullness extends two fingers breadth or more below the level of the ribs, while the skin and conjuctivæ assume the deep bronze appearance, from which, in connection with the locality, the disease derives its designation of *Creole* yellow fever. At short

intervals chilly sensations occur, though the temperature may be two or more degrees above normal. The urinary secretion diminishes in amount, and becomes so dense and viscid that, in the course of seventy-two to ninety-six hours, entire suppression follows, and the patient expires in a state of coma.

Unfortunately, a diversity of opinion exists in the profession as to the proper mode of treating the disorder, and with no authority to whom he can refer for aid, the physician has a choice of remedies with no assurance he can succeed with any, while the nature of the malady requires prompt and intelligent management. With the hope that the histories of my first four cases will prove of interest to the members of the profession, they are respectfully submitted for consideration.

Case 1. Male, white, aged thirty-five, had experienced chilly sensations with languor for the past few days, but did not consider himself ill, as he was able to continue his work as a blacksmith. After to-day's paroxysm he passed a small quantity of coffee colored urine, and immediately summoned me. On arrival, I found pulse, 108; temperature 101°; respiration, 18; liver enlarged and tender; skin, moist, with a gradually deepening bronze tinge extending over his body. I administered hypodermically:

℞	Quinine Bisulph	grains iij
	Morph. Sulph	" ¼
	Atropia "	" 1/150,

and prescribed

℞	Calomel	grains, viij
	Camphor	
	Pulv. Capsici aa	" x
	Morph. Sulph.	" ⅜
	Atropia "	" 1/60
	Quinine "	" xx

Div. in pil. no viij
M. S. Two every sixth hour.

In the interval, for nourishment to be allowed four ounces of skimmed milk, every three hours. On my return to my office, I examined a specimen of his urine, with the object of forming an opinion as to rational treatment of my patient, as I was entirely dependent on my own resources. It presented, reaction neutral; sp. g. 1025; traces of albumen; sugar, none: microscopically —blood casts, blood corpuscles, crystals uric acid, etc.

I concluded the remedies I had recommended would fulfil present indications, and on my return the next morning, his pulse was ninety; temperature, 98.5°; urine, clearer, abundant and exhibiting to the usual tests,—reaction alkaline; sp. g. 1020; albumen, *faint* trace; blood casts and blood corpuscles, very few. I directed his nurse to continue the skimmed milk diet, and to give

℞	Calomel	grains ij
	Morph. Sulph.	" j
	Atropia "	" 1/60
	Camphor	
	Pulv. Capsici aa	" xvj
	Quinine Sulph.	" xx

Div. in pil. no xvj
M. S. Two every sixth hour.

He was dismissed cured in a few days and at present is in splendid health.

Case 2. Male, negro, aged thirty-one, had chills five days prior to visiting me. To-day he passed a small quantity of dark urine at the expiration of the chills, and at once got in a buggy and rode the distance of five miles to my office. On arrival his pulse was 104; temperature, 102.5°; conjuctivæ, *very* yellow; liver enlarged and tender on percussion. He was so badly frightened that he could not urinate, so I passed a catheter, and drew off two ounces of coffee-colored urine, which exhibited—reaction acid; sp. g. 1020; albumen, trace; sugar, none; crystals of uric acid; crystals of urate ammonium; blood corpuscles; blood casts.

I prescribed the following,

℞	Calomel	grains, iij
	Morph. Sulph.	" jss
	Ext. Belladonna	" iij
	Camphor	" xl
	Pulv. Capsici	" xx
	Quin. Sulph.	ʒ j

Div. in pil. no xxiij
M. S. Two every sixth hour.

I ordered a skimmed milk diet.

On my visit to him the next day, he assured me that he had had no paroxysms in the interval. His pulse and temperature were normal; urine, about an amber color, and exhibited—reaction, acid; sp. g. 1012, albumen, *slight* trace; blood corpuscles; blood casts, *very* few. I continued treatment, as noted above forty-eight hours longer, and dismissed him cured.

Case 3. White, male, aged twenty-one, had a similar attack ten years ago,

but since that time has enjoyed good health. After experiencing several daily chills, at 11 A. M. to-day, he urinated during the paroxysm, and passed a small quantity of bloody liquid, which on examination showed—reaction, neutral; sp. g. 1015; albumen, trace; sugar, none; blood casts; blood corpuscles. On my arrival at 6 P. M. he presented the following symptoms—pulse, 96; temperature, 100°; urine, *slightly* clearer than that passed in the morning during the chill; skin, quite yellow; liver enlarged and tender. I gave, at once,

℞	Calomel	grains, v
	Sodi Bicarb	" x

M. S. In one powder.

I repeated the dose at 7 P. M., and at 9.30 P. M., gave five grains of quinine. At 7 A. M., he had a slight chill, skin and conjunctivæ had become *intensely* yellow. At 2 A. M. he passed a small quantity of urine, which was very *dense* and *viscid*, leaving a deposit on the side of the vessel when agitated. He realized his desperate condition, and requested that a priest be called in order that he might receive the last Sacrament, and prepare his soul for another world before sinking into the unconscious state, which, in this disease, for quite a number of hours precedes death. I gave five grains of quinine, which was promptly vomited. 4 A. M., pulse, 96; temperature, 102°. I gave hypodermically

℞	Morph. Sulph.	grains, $\frac{1}{6}$
	Atropia	" $\frac{1}{300}$
	Quin. Bi-Sulph.	
	Phenocoll aa	" 5

At 10 A. M., to relieve nausea, which was very distressing, I gave at one dose:

℞	Bismuth sub-nitrate	grains x
	Carbolic acid	gtts. j
	Fowler's Sol.	" iij
	Aqua Calcis	℥ j

At 11 A. M., I gave a capsule of

℞	Quinine	
	Phenocoll aa	grains, v
	Camphor	
	Pulv. Capsici aa	" jss
	Morph. Sulph.	" $\frac{1}{16}$
	Atropia "	" $\frac{1}{300}$

which was retained, and as well his nourishment, which consisted of four ounces of skimmed milk every three hours, followed by a teaspoonful of whiskey in a little water.

4 P. M. second day, urine *slightly* clearer, and does not stain the sides of the vessel when agitated. Pulse, 96; temperature, 102.5°. I gave eight grains of calomel dry on his tongue, and prescribed every sixth hour, to allay nausea,

℞	Bismuth sub-nitrate	grains, x
	Carb. Acid	gtts. j
	Fowler's Sol.	" iij
	Aqua Calcis	℥ j

To be followed by a capsule of,

℞	Quin. Sulph.	
	Phenocoll aa	grains v
	Camphor	
	Pulv. Capsici aa	" jss
	Morph. Sulph.	" $\frac{1}{16}$
	Atropia "	" $\frac{1}{300}$

Third day at 6 A. M., pulse 96, temperature 102°; skin and conjunctivæ *slightly* clearly. He has vomited several times during the night, but has retained food and medicines; urine clearing nicely. Continued milk diet and prescribed every eighth hour,

℞	Quin. Sulph.	
	Phenocoll aa	grains, v
	Camphor	
	Pulv. Capsici aa	" $\frac{1}{2}$

to be continued for three days, and dismissed him as cured.

Case 4. Creole, octoroon, female, aged fifty. Attention is drawn to her age from the fact that after 40 the disease has been considered as incurable. She has had chills daily for the past three days; at the expiration of to-day's paroxysm she passed a small quantity of port-wine-colored urine, which so greatly alarmed her son-in-law that he immediately called me. On arrival I found pulse 96, and weak; temperature 103°; tongue slightly coated, lips and eyelids very anemic. I gave hypodermically, Morph. $\frac{1}{4}$ grain, Atropia $\frac{1}{150}$ and directed,

℞	Calomel	grains iij
	Morph. Sulph.	" jss
	Atropia "	" $\frac{1}{25}$
	Camphor	
	Pulv. Capsici aa	℥ ss
	Quin. Sulph.	" j

Div. in pil. no xij

M S. One every six hours, with a glass of skimmed milk every third hour.

Her urine on examination presented—reaction, neutral; sp. g. 1016; considerable albumen; sugar, none; blood corpuscles; blood casts. Second day,

on morning visit I found pulse 92, strong; temperature 102.5°; skin and conjunctivæ very yellow; liver enlarged and tender on percussion. Continued treatment as heretofore. On my afternoon visit I found her pulse 108; temperature 104°; tongue pale and slightly contracted; area of hepatic dullness extending two fingers breadth below the ribs; skin and conjunctivæ *intensely* yellow; condition of urine unchanged. I directed a teaspoonful of castor oil to move her bowels, and to continue as formerly with the addition of a teaspoonful of whiskey in a little water after each allowance of milk.

On the third day, on my morning visit I found pulse 98, *weak;* temperature 102.5°; urine unchanged; she has a tendency to coma and is roused with difficulty; skin and conjunctivæ *deeply bronzed.* During the night she vomited a quantity of bile and gastric juice, and is unable to retain anything on her stomach. Recognizing the awful condition of my patient, already in the shadow of death, I determined, at all hazards, to make an attempt to unlock the secretions and provoke reaction. Measuring out a thirty grain dose of *fresh* calomel I poured it on her tongue, gave her a teaspoonful of water after it and immediately gave her a hypodermic injection in her arm of

℞		
	Morph.	grains $\frac{1}{6}$
	Atropia	" $\frac{1}{150}$
	Quin. Bisulph	
	Phenocoll aa	" v

Having other patients to visit I left her to her fate, feeling assured she would be a corpse within twelve hours. I was informed a few hours later by a member of her family that she was sinking rapidly. Shortly afterward I was requested to return because she had only swooned from weakness when raised over a vessel to urinate. My surprise is better imagined than described when I was informed that the urine appeared clearer. I returned at once and found urine *much* clearer, pulse 96, full; temperature 102.5°. I gave nothing, but directed one ounce of milk with a teaspoonful of whiskey every second hour. The bowels had not moved since the attack, but I considered that immaterial as she had taken nothing but liquids.

The fourth day on morning visit I found urine clearing nicely; pulse 96; temperature 99.5°, and she had vomited several times during the night.

I gave hypodermically,

℞		
	Morph	grains $\frac{1}{6}$
	Atropia	" $\frac{1}{150}$
	Quin. Bisulph	v

and directed the continuance of the milk and whiskey, with the addition of

℞		
	Bismuth Subnite	grains vii
	Acid Carbolic	gtts. j
	Aqua Calcis	℥ j

M. S. Every fourth hour to allay nausea.

Fifth day, on my morning visit I found pulse 96 temperature 100°. The bowels had acted slightly during the night. The urine was of a natural color and abundant. She rested well and felt in good condition. I recommended a continuance of the milk diet every third hour, and

℞		
	Quin. Sulph.	
	Phenocoll aa	grains v

S. To be given with five drops of Fowler's solution every eighth hour for the ensuing three days.

She recovered and is in perfect health.

The following is an outline of the course I now adopt with an adult, children in proportion.

As soon as I arrive I give thirty grains of *fresh* calomel, followed by a draught of water; and administer, *hypodermically exclusively,*

℞		
	Morph. Sulph.	grains, $\frac{1}{6}$
	Atropia "	" $\frac{1}{150}$
	Quin. Bisulph.	" v

every eighth hour until the urine is clear. In the interval support life with an allowance of four ounces skimmed milk every third hour. If the temperature reaches 103° or above I give, hypodermically, five grains Phenocoll or Antipyrine, and repeat when necessary to keep it under control. If the stomach is very irritable I give

℞		
	Bismuth Sub-nitrate	grains x
	Acid Carbolic	gtts. j
	Aqua Calcis	℥ j

every third hour until it is relieved.

With a series of twelve cases to date aged from ten to fifty years, both sexes and all colors, in my practice without a death, I now have but little fear for the safety of those who entrust me with their lives when attacked by this disease.

PERINEAL LACERATIONS.*

WM. E. PARKE, M. D., PHILA.

The perineum is that portion of the pelvic outlet anterior to a line drawn between the tuberosities of the ischia in front of the anus. The portion posterior to this line is known as the ischiorectal region. These two together constitute the pelvic floor, which has been aptly called the second diaphragm of the body. Its function (in male and female alike) is to furnish an elastic support to the pelvic contents.

As a matter of fact the brunt of this work falls on two structures, — the levator ani muscles and the perineal fascia. The other muscles are of trivial importance in the matter of support. Much weight has been assigned by various authors to the central tendinous portion of the perineum—the so-called perineal body—as a support to the pelvic structures. To my mind this adds a needless and confusing element to our conception of the physiology of the perineum. What function can the tendinous insertion of a muscle or muscles have apart from the muscles themselves?

The lesions to which the perineum is subjected may be due to accidents of various kinds but are caused chiefly by the process of parturition and are either overstretching or complete laceration of one or more of its compound parts. It is to this aspect of the subject that I desire more especially to refer.

The extent to which the laceration occurs has served as an arbitrary dividing line in classifying these tears. They vary from the separation of a few fibres beneath the skin, to a laceration of all the tissues between the vagina and rectum. The latter condition as a matter of course is easily recognized, but the former is not so apparent without a little study.

The line of tear follows certain well recognized courses. When it is a complete one, that is through all the tissues between the vagina and rectum, it is along the median line. When it does not include the sphincter ani muscle the tear may be in the median line of the skin perineum, but within the vagina this is practically never the case. Here it extends up one or both of the sulci,—the vaginal sheath following the general law of yielding at its weakest point. In recent injuries these lines can be studied to great advantage. It is not an uncommon occurrence, however, to have a separation of the muscle or connective tissue elements of the perineum without a corresponding lesion of the overlying mucous membrane, and very often the vaginal portion is torn without any injury to the skin perineum. A wholly intact skin perineum and in fact an elongated one from overstretching may be associated with a perineum injured to such an extent as to give rise to most of the distress occasioned by such lesions.

The signs by which a non-functionating perineum may be recognized are (1) The increased distance between the meatus urinarus and rectum. (2) A sagging down of the plane of the perineum, thus rendering the anal cleft less marked; that is the anus will be found more nearly on a plane drawn between the tuberosities of the ischia, instead of tucked up as it were in its normal position. (3) If the patient in the recumbent posture be directed to bear down, the anterior and posterior vaginal walls will roll out, more or less, according to the extent of the tear; and, (4) the converse of this, with the examining finger within the vagina, note the lack of resistance offered by the levator muscle when the patient is directed to hold up. (5) The absence on palpation of the central tendinous structure.

The objective symptoms to which a lacerated perineum gives rise depends upon the extent of the tear. If it includes the sphincter ani muscle the extensive rent is apparent on inspection, the triangular piece of tissue constituting the perineum is found to be wanting on palpation, and the ends of the sphincter muscle may be located by the wrinkles and pit in the overlying skin.

*Read before the N. W. Med. Soc., Phila., Nov. 12, 1895.

If the tear is down to but does not include the sphincter ani the chief support of the pelvic organs are taken away, and the more or less remote consequence is that these organs drop down. The uterus becomes retro-displaced and prolapsed, the vaginal walls roll out, the bladder and rectum follow the vaginal walls to which they have a connective tissue attachment, and we have the conditions known as cystocele, rectocele and procidentia.

A partial tear of the levator ani will show the condition above referred to more or less according to the extent of the tear. If the deep structures are not much involved, the perineum may be drawn upward and forward by its muscular attachments toward the pubis, and form to all appearances a tolerably good pelvic floor. One will often be surprised to note the extent of the dropping down of the perineum that occurs under ether in these cases.

Another class of cases are those comparatively infrequent ones when the fourchette and skin perineum is torn in the median line, and the deeper structures are very little or not at all torn. Such cases present a gaping introitus but may leave in reality a very substantial perineum. These cases appear at first sight to be much more serious than they really are, and are in marked contrast to the class above mentioned.

Rarely one will see in a melliferous woman of relaxed fibre, in whom the uterus becomes retroverted and prolapsed a perineum which does not hold the vaginal walls in the normal relation of opposition. In other words it is relaxed not torn.

I have said that the condition of cystocele, rectocele and procidentia following a torn perineum are more or less remote. If the patient is obliged to be much on her feet, and engaged in hard work or heavy lifting, the force of intra-abdominal pressure is brought to bear on the pelvic organs with greater effect, and the weakened pelvic floor yields early.

If the subject of the laceration has the nooks and crannies of the pelvis well packed with adipose tissue, the normal relation of the parts will not be disturbed so soon as in the emaciated subject. If she has had the misfortune to have had a pelvic peritonitis before the descent of the womb, it may be fastened by inflammatory adhesions to the pelvic wall high up, and not descend at all. On the other hand, adhesions may be formed after the descent of the organs, and thus complicate the laceration and displacement by pelvic inflammation.

The subjective symptoms of lacerated perineum vary as would be expected with the extent of the tear. When the levator ani muscle and deep perineal fascia are not involved there are usually no symptoms, even though the fourchette and skin perineum be quite extensively torn. When these two structures, the levator and fascia are torn or overstretched, the patients complain of a sense of dropping down of the internal organs associated with a number of reflexes, such as pain in the ovarian regions, most frequently the left, backache, headache often referred to the vertex, pleurodynia, flatulence, constipation, irritable bladder, tired feeling when on the feet, inability to perform the usual amount of work without fatigue, nervousness and irritability. To these are added pelvic congestion, with its attendant leucorrhea and deranged menstruation. A woman of nervous temperament and subject of this lesion may become a confirmed neurotic. The reflexes are especially apt to be marked in that class of cases in which the muscle is only partly torn and the remaining fibres are on a constant strain to repair the rent by drawing the perineum forward toward the pubis, and no doubt, may be due to the muscle strain just as overstrain of the eye muscles give rise to numerous reflexes in certain individuals. When the lesion is extensive enough or has existed a sufficient length of time for the uterus and vaginal walls to protrude through the vulvar orifice, or for complete procidentia to occur, the reflex symptoms above noted entirely or nearly all disappear. Patients in this condition complain of the sense of dropping down of the internal organs, difficult urination and defecation, and inconvenience from the extruded organs which often become ulcerated. It would seem as if the nerves, which had been dragged upon in the relatively small lesion became overstretched in the extensive one and thus had lost their irritability.

When the tear is completely through the sphincter, the inevitable consequence is that the rectum becomes unretentive, and the patient is subjected to the mortification of passing gas and feces involuntarily, and so consigned to the life of a recluse. Such persons often keep their bowels locked up for a week or ten days at a time and then take purgative medicine aud live in seclusion for a day or two only to repeat this routine.

In view then of the invalidism due to neglected perineal tears—an invalidism varying in degree from slight nervous manifestations to rectal incontinence and extending over an indefinite period—it becomes the conscientious physician to carefully examine his lying-in patients after labor to ascertain whether there be any laceration, and in case there is to make the necessary repair at once. It has been repeatedly demonstrated that the primary operation done with the same care and attention to details as the secondary will yield a good result, and even a better result than can be secured after atrophic changes have gone on for years in the torn muscles, and it offers the advantage that it saves the patient a subsequent operation.

ANCIENT DENTISTRY.

It is strange that dentistry, as practiced to-day, is the awakening of an art which had been blotted out for over 1,700 years; for it is probable that Virgil and Horace, as well as the leading political men in Rome, availed themselves of the services of Cascellius, a Roman dentist. who filled and extracted teeth. The moderns seem to have neglected dentistry until the beginning of the last century; and it is strange that the art should have been practically lost, when it is considered that nearly 500 years before the Christian era teeth were filled with gold and joined together with wire of the same metal. Among the earliest references to dentistry—and it was not spoken of then as a new art—is a Roman ordinance, dated B. C. 453, against the removal of gold from the teeth of the dead previous to burial. Herodotus, who wrote 450 B. C., says that there were skillful physicians 1,500 years before that time, and that they were compelled by law to confine themselves to a single branch of medicine, and that diseases of the teeth was one of those branches. Hippocrates (B. C. 400) referred to joining the teeth together with gold wire. Celsus, the distinguished Roman physician who wrote in the first century, recommended that the decayed part of the teeth should be filed off; and Martial, a Roman poet, states that the Roman ladies increased their personal attractions with artificial teeth of bone or ivory. He also mentions the use of tooth-powder.—*British and Colonial Druggist.*

Enemata of White of Eggs.

Dr. J. Ashburton Cutter writes in the *Journal of the American Medical Association:* "Albumin of egg is valuable to feed to patients when other forms of nourishment cannot bc taken, or to reinforce other nourishment. I have known patients to take the whites of eighteen eggs in one day with evident advantage; in some cases the result appeared almost life-saving. Exhibition by the mouth is made in three ways: 1. Raw. 2. Raw with milk. 3. Dropped in boiling water and slightly cooked. Enemata of uncooked whites I have lately used with decided benefit. Administration by a hard rubber syringe. Eggs vary in size and weight, and should be sold by weight; the albumin of an egg varies in bulk from one-half to one ounce as eggs run. Drugs can be administered with the raw albumin; sometimes a little laudanum is needed, but rarely, to quiet the bowel. Patients state that an enema relieves the faint, gone feeling in the stomach, and such relief lasts longer than when the whites are administered per os."

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PHILADELPHIA, SATURDAY, NOVEMBER 30, 1895.

EDITORIAL.

"WHAT'S IN A NAME."

In the last issue of the REPORTER there appeared a "Report of Cases of Suspected Hydrophobia," and the discussion it provoked before the Allegheny County Medical Society at a late meeting.

This subject of hydrophobia, like Banquo's ghost, seems to suffer periodical resurrection and banishments. If only the bald statements of veracious men could be accepted at a definite valuation, much doubt and confusion would be avoided in many instances. This is a case in point where the presentment was not of a theory, but of certain manifestations following certain causes. To be sure, it must be conceded that with some people, it is possible to see almost anything, and ocular evidence is often influenced by preconceived predjudice; so much so that even ghosts of the Banquo order have been seen and testified to by more than one individual.

In regard to hydrophobia, Dr. Srodes sums up the whole matter in the old saying, "A rose by any other name would smell as sweet."

This is the entire matter in a nutshell. The name, hydrophobia, itself is misleading as indicating a fear of water, which is only one of the symptoms, and at best a disputed one. Further, unless one accredits a partial knowledge of symptoms as tantamount to a knowledge of the disease, we know very little about this disorder: a respect in which it differs but little from many other disorders.

The writer, personally, has never seen a case of hydrophobia, nor has he known a man who has seen a case in a human being. But there are many phenomena about which the same might be said. For instance, the writer has never seen a man struck by lightning, and he knows a lot of other people who have never seen the same, but he has no doubt that every year, many are struck by lightning and killed.

A like spirit of charity or justice might be accorded the many patient investigators with the new remedy, antitoxine. We have met quite a number of intelligent physicians who, without any personal or positive evidence to go on, unsparingly denounce the remedy and everything connected with it, of course including all of its most eminent advocates. While not presuming at the present time or in the present instance to give anti-toxine unqualified approval, the REPORTER would deprecate the tendency of the so-called conservative element in the profession, to fall into the habit of being too suspicious of new things, and too ready to denounce new remedies, and the men who by patient work in the laboratory, have evolved them. With some the stamp of the laboratory is sufficient for condemnation, as though it were not a fact that every drug we have is prepared in the laboratory, either by analysis or synthesis, and the only guides to use are learned by experiment. The difference being that in one case we have epsom salt, and in the other medicated horse-serum. In the *Johns Hopkins Bulletin*, for July and August, 1895, there is quite an exhaustive table of statistics, evenly arranged and quite readable, on the subject. Whether the result of investigation be to induce a trial or a laying of the whole matter on the table, the position of the investigator, at least, would be more tenable.

How many men we meet who, to the inquiry: "Doctor, do you use anti-toxine?"—or any other new thing, for that matter--reply: "No! I am going to wait for some one else to try it first." To be sure it might be argued there are enough men trying doubtful experiments in the medical profession at almost any time, but there is a question of responsibility which comes up, where the physician is a judicious and conscientious man, which may not allow him to put the thing aside simply because it has not been thoroughly tested and proved to his satisfaction by some one else.

Diagnosis of Epidemic Cerebro-Spinal Meningitis.

Scherer (*Centralbl f. Bakt. u. Parasitenkunde*, April 16th) points out that not infrequently a severe nasal catarrh is present at the commencement of an attack of epidemic cerebro-spinal meningitis; also Weigerts has found purulent inflammation of the upper part of the nasal cavities on *post-mortem* examination of some cases. The author has examined bacteriologically the nasal secretion in a series of cases of this disease, and has found Weichselbaum's diplococcus intracellularis meningitidis by microscopical examination of cover-glass preparation or by cultivations in all recent cases. Details are given of the 18 cases examined. The nasal secretion of fifty persons who were not suffering from the disease was also examined bacteriologically, but the diplococcus intracellularis meningitidis was found in two cases only, and in both of these there was the possibility of exposure to the infection. For the detection of the diplococci cover-glass preparations of the nasal mucus are simply stained with a watery solution of gentian violet for a few seconds. The author regards as characteristic the occurrence of three or four diplococci enclosed in a leucocyte, and also the presence in the specimen of many cells containg these diplococci. The appearance with respect to the intracellular position is very similar to that of the gonococcus. The fact that the organism, which is regarded as an exciter of the disease, was found in the nasal secretion in all recent cases which Scherer examined leads him to conclude that infection occurs by the diplococci being inhaled; they are then taken up by leucocytes, which afterwards find their way by the lymph tracts into the brain and membranes. He believes the detection of the diplococcus in the nasal secretion to be of great importance in the diagnosis. The probability of detection is greater the earlier the examination is made. The author regards the nasal secretion as infectious.

SOCIETY REPORTS.

CINCINNATI OBSTETRICAL SOCIETY.

Meeting of June, 1895.

Dr. J. A. Johnston read a paper entitled "THE DIAGNOSIS OF BILIARY CALCULI CONFIRMED BY EXPLORATORY INCISION." (See page 632.)

DISCUSSION.

DR. RUFUS B. HALL: I think the essayist has well said that an uncomplicated operation for stones in a distended gall-bladder is one of the simplest operations in abdominal surgery. He has also outlined the difficulties to be encountered in complicated cases, and it is to these difficulties I confine my remarks. I believe the technique of gall-bladder surgery is not yet complete, and we have no hard and fast rules to guide us in these operations. When the operation was first proposed all felt sanguine that we were going to have easy sailing and cure all our cases with ease and certainty--at least we hoped to do so. While it is true that in uncomplicated cases or those with complications easily overcome, the operation is safe for the patient, and satisfactory to physician and patient, yet the more I see and do of this work the more I am convinced that there are cases which will put the best operator to his wit's end and embarrass him in more directions than one, before he completes his operation satisfactorily to himself.

In reading the literature of the subject, as we have it to-day in the medical journals, I have been impressed with the reports of how operators overcome difficulties, and I have been also impressed with the scarcity of literature upon difficult and complicated operations. Except from certain operators, I see reports of but few complicated cases in the literature. I feel convinced, from my experience in this class of work, that such cases do occur in the hands of all operators. The difficult and complicated operations must come in a given ratio or proportion. How to overcome these I am not here to answer. But I want to point out a few difficulties that are certain to be encountered in this line of work. Among the more prominent is one mentioned by the essayist—stones in the common duct. But this is not the most difficult problem to solve in these operations. I am satisfied that stone in the common duct can be dealt with as well as in the other ducts or in the gall-bladder. But, with a thin gall-bladder filled with a number of small stones, or a large stone, contracted until it is an inch or an inch and a-half long, the size of your little finger perhaps, the gall-bladder no thicker than a piece of paper, and so friable you would rupture it in removing the gall-stones, and the case will indeed be a difficult one to deal with. I have encountered just such cases. If we have stone in the common duct with cartilaginous deposit of long standing, either side of the stone leaving room enough for a small part of the gall to be driven on into the intestine—and this is not imaginary for I have seen such cases—the complications are not easy to overcome. With malignant growths complicating stone in the common duct or in the gall-bladder, even if the difficulty can be overcome by anastomosis with the intestine the operation is not always easy, although it may seem so in theory. If you have a gall-bladder that is fairly healthy or distended, and with a Murphy button or other device you can anastomose with the intestine and switch off the bile, it may be easy; but if you keep at it long enough, you will find cases of a contracted gall-bladder in which you cannot do this.

One of the most difficult in my experience, is a case with a small, contracted gall-bladder practically destroyed, and the cystic duct so obstructed that if you

do remove the stone you cannot get a satisfactory opening through it into the intestine, and anastomosis of the gall-bladder with the intestine is out of the question. Here is a difficulty that is not easy to overcome and one that will probably end in disaster—death. However, the operation—in the majority of cases in my experience—is a very satisfactory one.

It is in reference to the complicated cases and how to overcome difficulties, I wish to hear the opinion of the members. To my knowledge, in more than one man's experience in cases of stone in the common duct, it is impossible to bring the gall-bladder up to the peritoneum; it is impossible to make an intestinal anastomosis; and you cannot remove the gall-bladder because some provision must be made for the gall that is to be turned out in the few hours next after operation. I belive it is a duty to ourselves and our patrons to look for these complications in every obscure bladder operation, and be prepared to deal with them promptly.

With reference to diagnosis in these cases I practically agree with what the essayist had to say. There is one simptom which I think deserves more than mere mention, and that is the locality of the painful point in the early history of gall-stones. The pain is not in the region of the gall bladder, it is not in the region of the liver. Recall these cases; the location of the pain in every one was exactly in the middle line. That is a point that has not been dwelt upon by writers, nor have I seen it mentioned in the journals, but in my opinion it is worthy of note. For months or years these patients complain of pain, always in the middle line, supposed to be almost everything else except gall-stones.

Dr. E. Gustav Zinke: Did you ever observe a case in which a stone was mistaken for a cancer, and upon operation the true condition was shown?

I cannot recall a case now in which a stone occurred. I have knowledge of a case in which a diagnosis of malignant disease was made, and the autopsy revealed a single stone in the common duct and no cancer. I have operated upon a few cases in which we found gall-stones and cancer. Dr. Reed will recall a case several years ago in which I removed several gall-stones and a cancer in the region of the gall-ducts. And while we are on the subject, I will say this: In the late stage of the history of a case of gall-stone, where malignant disease is present, it is not easy to settle the question of malignancy, and I believe it can be done only on presumptive evidence until exploration is made. I remember, two or three years ago, seeing in Williamsburg, Ohio, a man who had lived in Texas. He had a history of gall-stone extending over several years. The patient had lost much flesh, was jaundiced, the liver enlarged to two inches below the ribs. He was bleeding from the gums, and there was every indication that he had not long to live. I believed he had gall-stones and so stated, but did not believe it was a case which promised anything from operation, and advised not to operate because it was fair to presume he had malignant disease as well. The man died a short time afterward, and autopsy proved a number of gall-stones, one in the common duct, and a cancer about the pylorus. That history is representative of a number of cases that have come under the observation of myself, as well as others. I remember, a few years ago, when I first suggested gall-stones being the cause of cancer, I was made the butt of medical jokers about town. I have since investigated further and believe there is more than presumptive evidence that the long-continued irritation from gall-stones predisposes to malignant disease.

Dr. C. A. L. Reed: One of the most serious obstacles we encounter in practice is not the clinical condition revealed by operation so much as the fact that we meet these cases after prolonged delay which leads to these complications. Most serious is the inability of practitioners to have early recognition of these cases. A number of instances illustrative of this fact, have come under my observation. I recall a case from which I removed 123 gall-stones, that had been under treatment by various doctors for chronic dyspepsia giving rise to gastralgia. The case was one in which intermittent paroxysms had never occurred, and there had never been a history of hepatic pain, nor of this median pain (which, however, is a very important distinction).

For three years, as she said, she felt

herself too short in front and unable to stand up with any degree of comfort. I removed a number of stones and then found one obstructing the hepatic duct. The patient has been well since. She had the persistent pain, which was worse a couple of hours after eating. There was some dyspepsia. There was some gaseous eructations from the stomach. The accumulations of gas in the stomach increased the pain, which was never paroxysmal, but always persistent.

There is not much to add to what has been said about the obscure symptomatology of these cases. Sometimes coming on with a peculiar insidiousness, at other times very suddenly, the character of the pain may not be the sharp lancinating kind we speak of as peculiar to the hepatic colic. I remember of hurrying to the case of a practitioner for what he said was a floating kidney that was strangulated. The pain was referred to the lumbar region. On examination a tumor corresponding to the region of the kidney could be felt. We made an incision, found an adherent omentum, pulled it back and found an enlarged gall-bladder fastened down to the renal capsule. That gall-bladder was simply occluded by the impaction in the cervical end of the gall-bladder of a large mulberry calculus. It was not large enough to give the pain peculiar to hepatic colic, but simply a dull, heavy pain, which had confirmed the doctor's belief that he was dealing with a strangulation. I don't believe any one could determine that the tumor was other than simply an enlarged kidney. I confirmed the opinion of the practitioner on my preliminary examination. There was apparently really no trouble with the kidney. This was another variation in the symptomatology of these cases, and a very important variation it may prove in a given instance..

Something has been said about complications; I wish to discuss one which has not been mentioned—this is posterior cicatrical contraction of the common duct. Given a common duct through which a number of calculi have made their transit, or one that has been injured by the long impaction of a stone, and that duct has undergone changes which will lead to cicatrical contraction. It is kept patulous by the elasticity of the bile. Now operate, doing the old operation, fix the fundus of the bladder in the abdominal incision, relieve the duct of the biliary pressure, and there is nothing to keep it in distention and it contracts. I have seen three cases of the kind. One case was operated upon by Dr. Penrose, of Philadelphia, and came under my care afterwards. I wrote to the operator and he said he had removed a stone by disintegration. When I called to see the case, the wife, who acted as nurse, went to the patient, simply removed the plug and withdrew some bile. It was a splendid case for physiologists which, unfortunately, was not utilized. I used the Murphy button and got a very good recovery. The case was in the practice of Dr. Adams, of Dayton, Ohio.

Another case I operated upon over a year ago and did a choledotomy, removed through the incision three large calculi and closed the incision with sutures. The patient made a good temporary recovery, but stools continued pale, and, once in a while, the sinus would reopen under the pressure of the bile current I operated and found cicatricial contraction, but I did not do an anastomosis because there were adhesions among the intestines that rendered it impracticable. The woman subsequently died of malignant disease—cancer of the uterus.

From the third case I removed a number of calculi, which I exhibited to one of the local societies. There was a recurrence of the clay-colored stools. The woman has made a beautiful recovery, but it is an instance more typical than the former of cicatricial contraction of the biliary duct. This complication I do not remember seeing noted in the books, but it is one that certainly exists.

DR. ZINKE: I have never operated for biliary calculi simply because I have never seen a case that required operation at the time of my attendance. All the cases that have come under my charge have recovered without operation. Still, judging from the experience of others, and from the cases I have seen with other gentlemen who have operated, I can well appreciate the difficulties which surround many of these cases.

I desire especially to emphasize the

difficulties which attend the diagnosis of some cases of gall-stone. I remember one case in which, subsequently, either one or a number of gall-stones were removed, where there was not a single symptom of gall-stone present at the time I saw the patient. She was thirty-four or thirty-five years of age, and presented a typical history of dysmenorrhea, with great tenderness of the uterus and a profuse discharge, There were no other symptoms in the case. I suggested, for her relief, curettement. The patient concluded to have the curettement done, but afterwards she was influenced by a friend to seek the advice of a professional brother. I don't know that he at the time made the diagnosis of gall-stone, but when I made inquiry as to what had become of the case, the gentleman who had brought her to me told me that she had been operated upon and that a gall-stone was found.

Another case, which has greatly interested me of late, is a lady, quite prominent in German circles, who has been bed-ridden for several months and has lost flesh rapidly and extensively. She wandered from one physician to another. None, it seems, were able to make a diagnosis. A friend of mine, a very conscientious and competent practitioner, was called in consultation something like six weeks ago, and, after making a most careful examination of the fluid ejected from the stomach, made a diagnosis of carcinoma ventriculi. Shortly afterward he was obliged to leave the city and a Homœopath was called in, who is treating the patient now for biliary calculus. She is getting better, apparently recovering rapidly, after having passed a number of gall-stones. So the diagnosis of carcinoma ventriculi is apparently knocked in the head. The symptoms which indicate the presence of gall-stone are certainly very numerous and very often so masked that the best, most skillful and observing may, at times, be led astray in this kind of cases.

Dr. S. Stark: It was not my' intention to say anything upon the subject of the paper of to-night, but the case referred to by Dr. Zinke reminds me of one in my own family, which, on account of the difficulty in diagnosis, I would like to relate. My father had for years pain in the epigastric region, directly in the median line. He began to lose flesh, finally took to vomiting and had pains of a very severe character, which were considered to be gastralgic at the time. The emaciation continued, and he was scarcely able to keep anything on his stomach. A diagnosis of carcinoma ventriculi was made by a number of eminent local physicians. He also consulted a number of physicians in Buffalo and in New York, who entertained the same opinion. He finally concluded to have the supposed carcinoma removed, and it was found to be gall-stones. Among the most prominent symptoms was the vomiting of food after being in the stomach four or five days. Great quantities of food were ejected. It looked like a dilatation of the fundus due to stenosis of the pylorus, but during the operative exploration it was found that the stomach was really small.

I do not of know any adhesions about the stomach or intestines.

He was found to have a small, cirrhotic liver, and a small gall-bladder. The latter was sewed into the wound and subsequently tore loose. The case in all its features certainly simulated cancer of the stomach, and was so pronounced by some of the best men in the country.

I also wish to refer to a case which puzzled me for a time. A young lady, twenty-five or twenty-six years of age, had periodical pains in the epigastric and right hypochondriac regions, similar to those of gall-stone colic. Finally she passed segments of a tape-worm, and when relieved of the tape-worm had no more trouble.

I would emphasize the fact of the presence of pain in the epigastric region. All my patients complained of pain in the pit of the stomach.

. At no time did my father have attacks of jaundice, or clay-colored stools, or bile in the urine.

Considerable has been said about the necessity for operation in cases of gall-stones, and I desire to dwell a little upon when not to operate. I operate upon very few. One of the cases that would demonstrate the non-necessity for interference, I met with in the very beginning of my practice. The patient was a young woman, weighing perhaps one hundred pounds, in whom you could palpate quite readily all the palpable

viscera. She had pain, thought to be due to gastralgia. I saw her subsequently during one of these attacks, and found a very large gall-bladder. Dr. Connor coincided with me in the diagnosis of gall-stone. She has not had an attack since. Seven or eight months ago she was in bed for something else, and I begged the privilege of examining her, and found the gall-bladder considerably enlarged. The treatment was simply palliative at the time. Of course we have all met with patients who have gone to Carlsbad, and after their return have had no more of this kind of trouble. A patient of mine went there last year, passed a few gall-stones, and has had no trouble since. A friend of mine, who during a period of fifteen years had repeated attacks of gall-stone colic, went to Carlsbad ten or eleven years ago. He does not know that he passed any stones, but has had no gall-stone colic since. Surely, not all the cases that come to our hands require operation.

I would class among the operative cases those with suppurative gall-bladder and hectic symptoms; those with stone in the cystic duct producing such constant and severe pain as to require the too frequent use of morphia; and, lastly, those of impacted stone in the hepatic or common bile duct, threatening the life of our patient through cholemia.

DR. PALMER: The remarks of the last speaker lead me to make a few remarks. I have never seen a case of biliary calculi that required operative procedure. That is sometimes required, but it should be recognized, certainly as a *dernier ressort.* Some patients have been told that the Carlsbad springs are very efficacious, and often, they have been very greatly benefited by them. One patient was frequently attended by me, for attacks of pain which I finally came to recognize as due to gall-stone. He went to Carlsbad, and I think has entirely recovered. He has not had an attack for many years. There are other very excellent remedies in the treatment of this disease. Some of these patients can take the Carlsbad salts which we have in this country. Other remedies are the phosphate of sodium and the salicylate of sodium, and I think one of these three remedies should be given pretty constantly over a series of months, before any operative interference should be thought of.

I think these remedies work by dissolving the stones.

[TO BE CONTINUED.]

ABSTRACTS.

THE TREATMENT OF MALIGNANT DISEASE.

Although we have considered the question of malignant disease several times in the past two or three years, the subject is by no means exhausted, and the series of papers, as they appear in the "Annals of Surgery," Vol. XXII, No. 4, are well worth a careful consideration.

The first of the series considers the question of the etiology diagnosis, and treatment of malignant disease, and was the president's address at the opening of the session of the association for 1895.

Like most other observers, Dennis, in this paper, makes the limit of observation under which a cure cannot be expected as three years. In studying the question of the growth of malignant disease, only those cases are taken into account where a careful pathological examination has fully substantiated the clinical appearance.

The author says that the first thing which impresses one in the study of this subject is that there are certain recognized conditions which give rise to malignant disease; the second is that apparently these same conditions exist without giving rise to the disease. It

* Editorial in the American Medico-Surgical Bulletin, Nov. 1, 1895.

is, therefore, most difficult to understand why in one case a carcinoma or a sarcoma develops, and in another, under apparently similar conditions, neither develops. The same law which governs infection in zymotic disease is true when put in operation in regard to infection in malignant disease, but the full interpretation of that law has not yet been made. He does not consider that the germ theory in these cases has been proved, but considers that it probably will be in the near future, believing that eventually the clinical side of the question will be made to "harmonize with the bacteriological." At the present time the weight of opinion seems to be opposed to the germ theory.

Clinical evidence favors the view that changes of an inflammatory nature are responsible for the development of malignant tumors, and the point is emphasized that mechanical injury is associated with the development of sarcoma, particularly of bone, and that peripheral irritation is a prominent feature in the development of carcinoma, particularly of organs and of soft tissues. A series of nine cases illustrating the development of cancer from a traumatism is given. It is easy to understand that in these cases the injury may have acted as a predisposing cause, but it is more difficult to explain the action of a traumatism upon a case of multiple sarcoma. It may be difficult to determine whether there is a special cause which gives rise to the growths, or whether infection spreads from a primary local center. "Multiplicity of growth," is not a proof of generalization of the growth, and in the cases of multiple sarcoma there must be a primary local infection, from which rapid dissemination of the disease takes place, by the blood-vessels. The effect of irritation on the development of carcinoma is also illustrated by a series of cases, the irritation being caused by eczema of the nipple, causing epithelioma; by irritation arising from a red-rubber plate of false teeth (and in this connection it is remarked that this substance should not be employed in the making of sets of false teeth), and by irritation from a scar. It is also stated that nicotine is, without doubt, a source of irritation to the mucous surfaces. Its absorption by mucous membrane is rapid, a single drop placed upon the tongue of a cat prostrating it at once, and killing it in less than 80 seconds. There are about 331 grn. of nicotine in a pound of tobacco, and 5 mg. will kill a dog in three minutes; in view of these facts the cases of epithelioma starting from the part of the mouth in which tobacco is continually held are a most significant fact. Causes arising from sinus irritation are also illustrated. Cohnheim's theory cannot be rejected, and the parasitic origin of tumors has still to be considered.

A careful study of cases of malignant tumor shows, first, that injury or irritation is apparently concerned in the development of malignant disease (whether these agents act as predisposing or exciting causes time only will determine); second, that all traumatisms of the bone should be treated upon sound principles of surgery; third, that every unnatural irritation affecting the integument or the mucous membrane should be removed, the author even strongly recommending the removal of moles, especially those in which hairs are imbedded, since they are often the seat of malignant infection. Papillae and warts and localized scales of psoriasis, with no tendency to heal, should be removed.

The facts presented by his cases suggest the following questions: First, has traumatism or irritation anything to do with the etiology of malignant tumors? second, if so, what is the relation which the cause bears to the effect? third, if not, how can the cases which have been reported in this paper be explained? fourth, if it is admitted that traumatism irritation, separately or together, bear etiological relations to these tumors, how can the presence of these malignant tumors, in the absence of the agencies, be explained? fifth, if the theory that traumatism or irritation can develop a malignant tumor is true, do not the exceptions of that theory demonstrate the purely local origin of these neoplasms? sixth, do not the cases operated upon early demonstrate the correctness of the theory that by the removal of the local infection constitutional infection can be avoided?

Diagnosis, however, is the most im-

portant part of this question, since delay at arriving at positive diagnosis of malignant disease is equivalent to death. The earlier a positive diagnosis is arrived at, the more certain are the prospects of cure.

Time of operation and rapidity of growth, while usually affording strong evidence in favor of malignancy, may be misleading. The age of the patient must always be considered. As a rule, with some exceptions, it is true that carcinoma is not likely to appear before 45 years of age, while sarcoma usually appears under 45, and is the characteristic malignant tumor of early age. Heredity has some influence, the statistics showing that about 4 per cent. of the cases of malignant disease is associated with a history of heredity.

The site of the tumor furnishes some knowledge of its character, as, for instance, sarcoma is the primary malignant disease of bone, while carcinoma rarely effects this structure, except secondarily. The gross appearance of malignant tumors is characteristic. The dusky hue of the skin, the dilatation of the veins over the surface, the great tendency to ulceration, the subcutaneous hemorrhagic extravasation, are points seldom seen in any other tumors except the malignant. The consistence of the growth and local temperature are important, malignant tumors being usually firm and hard, unless they are cystic, in which case the fluid is more bloody, and, of course, a sense of fluctuation is obtained. No rise of temperature would be observable in these cases, unless some acute inflammatory condition had been superinduced.

The presence of pain and cachexia must be taken into account, and the character of the pain is important; for, with the exception of the colloid variety of cancer, pain is present in all varieties of malignant disease; and as this type of cancer is seldom situated at points amenable to surgical operation, this exception is easily remembered. Benign growths are painless unless some inflammatory condition is present, or unless a nerve be included in the growth. In malignant disease the pain is not continuous. It is sharp, lancinating, and tearing, and increases in severity with the development of the tumor, and is not usually increased by the manipulation of the growth by the surgeon. Cachexia is always present, sooner or later, but it is only in exceptional cases that its presence is of any early diagnostic value, and its presence at any time indicates that the growth has advanced a long way in its local effects.

The most accurate information with regard to these tumors may be obtained by harpooning. This method consists in placing a small needle, protected by a cannula, into the interior of the tumor, and then, by a rotary movement of the needle, entangling some of the tissue in the point, which is made like a harpoon. Microscopic examination of the tissue can then be made, and a positive diagnosis obtained. One must remember, however, that this operation may set up inflammatory changes, and particularly if careful antiseptie precautions are not taken.

The prognosis depends on many factors. Complete and radical early removal is the only means of obtaining a good prognosis. Clinical history demonstrates the fact that death is the alternative, unless radical operation is promptly resorted to as a clinical measure. If a radical operation has been performed, and recurrence takes place, is there any prospect of permanent cure by repeated operation? The author considers that operation should never be abandoned so long as the growth can be removed, provided only the metastasis has not invaded the internal organs. This plan will not only prolong life, and relieve physical suffering, but it may have a direct bearing on the ultimate and permanent cure.

The author says that the surgeon, in assuming the care of a patient with malignant disease, should apprise the friends, but not the patient, of the real dangers. It is well also to refuse to take all the steps necessary to arrive at a correct diagnosis, unless assurances are given by the friends that the patient will abide by the result, and submit to the proper operative treatment. It often happens that after using the harpoon a fungous growth starts up immediately, and the patient becomes dissatisfied and abandons the surgeon, to take the advice of some charlatan or quack.

In malignant disease the only safety lies in early diagnosis, in a radical operation, and in a repetition of the operation if necessary. The author reports 12 cases of sarcoma of the glands, with recovery in all but one, 91.66 per cent. He also reports 17 cases of subperiosteal sarcoma in which the results are known, with 3 deaths, one from shock, and 14 cures beyond the three years limit, 82 per cent., which is in marked contrast to Butlin's statistics of 2 per cent., or those of Gross of 17 per cent., of permanent cures. Butlin gives no definite statistics of central sarcoma, and Warren cites 29 cases selected from literature, with 62 per cent. cured. The author has had but one case of this type, and his patient was operated upon, and is well ten years after the operation. Excision of sarcomata affecting bone should not be considered for a moment, and any operation short of complete removal so as to include the entire bone is sure to be followed by a return. In epithelioma of the face, Butlin collected 206 cases, with 21 deaths, mortality 10 per cent.; 59 cases were lost sight of, and 25 cases had not reached the three years limit, leaving 122 whose subsequent histories were known. Of these 21 died during treatment, in 51 there is a recurrence, and the remaining 50 were permantly cured, or a percentage of about 41. The author has operated 8 times with no mortality following the operation. In one the patient died after many local recurrences, 30 operations having been performed, extending over a period of 10 years; 2 died from recurrence within three years; and the remaining 5 were permantly cured—62 per cent. In carcinoma of the genitals, lips, etc., the number is too small to base statistics upon, but there are cases of permanent cure among them.

The necessity of an investigation of carcinoma can be estimated when it is stated that in England alone there are 7000 deaths annually from cancer, and 30,000 patients suffer at all times in that country from this infection. More deaths result from this disease in the United States in one year than the sum-total of deaths due to erysipelas, tetanus, hydrophobia, lightning, typhlitis, gunshot wounds, joint diseases, together with other well-know surgical affections. Cancer causes nearly half as many deaths in one year in the United States as are caused by accidents and injuries of all kinds and descriptions. The statistics show that the disease is greatly increasing, and the larger proportion of deaths occurs in nations which have reached the highest state of civilization. In one year in the United States there were 13,000 deaths from cancer, twice as many among females as among males; 14,000 people in this country are dying each year from this disease.

The author has had 97 cases in which the breast was amputated, with one death from hemophilia, and without any instance of pyemia, septicemia, erysipelas, or abscess; 23 cases were sarcoma and other tumors than cancer, leaving 74 cases or pure carcinoma. The subsequent histories of 41 are known. Three had not reached the three-years limit. There are 38 cases therefore remaining in which the subsequent history is known; 17 show permanent recovery, 45 per cent. The remaining ten passed the three-years limit, giving 77 per cent. permanent cures in the last 15 consecutive cases. The mortality of the radical operations for removal of the breast has been redneed from 10 per cent. (Gross) to 2 per cent. (Dennis), and zero (Weir). In sarcoma of the breast Williams reports no cases of permanent cure, and Gross 13 per cent. The author has had six cases, with 4 cures, the 2 having died from recurrence, 66.66 per cent. permanent cures.

Finally, he advocates that all tumors, whether benign or malignent, should be removed. Benign tumors should be extirpated, because a certain proportion of them undoubtedly degenerates into malignant tumors at special occasions or periods of life, and certain malignant tumors remain quiescent for years, giving rise to the idea that they are innocent growths. The mere presence of a tumor in the body, especially in the breast, argues in favor of its malignancy, and it therefore should not be permitted to remain. There is no benign tumor in which it has not been demonstrated that it may assume malignancy under favorable conditions. Out of the 649 cases of tumors of the breast collected by Gross, 587 were malignant, and only 62 innocent.

In the operative treatment of cancer of the lips, tongue, floor of mouth and pharynx, Dr. Phineas S. Connor says that no operation fulfills the indications that does not effect the extirpation of the disease, but when, from the location and extension, cancer cannot be thoroughly cut away, that operation is best which, saving life for the time being, secures the greatest immunity from secondary growths, external or internal. Even if nothing can be detected upon palpation, it is certainly wise, in any case in which cancer of the lip has existed for several months, to open up submaxillary space and thoroughly examine it, for in this form of cancer, as in others, infected glands may be found, the presence of which cannot be determined through unbroken skin. Improvement in the treatment of cancer of the lip must lie in earlier and more thorough operative interference. Cancer of the tongue is present in about ten per cent. of all the subjects of cancer, and nearly always glandular enlargement is present. In about 10 per cent. of the cases in recent years the patients have promptly died. The percentage of recurrences is at least 75, probably nearer 95 if all the facts were obtained. The growths are found commonly in the glands surrounding tissues. The unremoved portion of the tongue, and still more its stump, when it has been taken away entire, comparatively seldom show recurrence after proper operation. Though life is not saved, it is unquestionably prolonged and made more comfortable. An early operation is essential. Far better that occasionally a tubecular or syphilitic tongue should be removed than a carcinoma allowed to widely extend. Any operation through the mouth unless done very early, and for a limited disease of the tip or, possibly, of the side, should be supplemented by an exploratory incision in the submaxillary region and the taking away of infected glands. The whole disease in other cases can only be reached through the neck and floor of the mouth. Cancer of the pharynx is usually secondary, and associated with grave disease of the tongue and cheek, so that operative interference is as a rule, useless. If primary and united to the velum, it can be removed by knife, scissors, or the cautery, and, if done early and radically, will probably prevent recurrence. If the tonsil is infected, it is probable that the lymphatics are involved long before the case comes under the observation of the surgeon. Recurrence in any given case may be reasonably expected in from three to six months.

The treatment of cancer of the breast is discussed by J. S. Wight. He divides the tumurs of the breast into three kinds: first, those in which the surgeon may operate with the hope of cure; second, those in which an operation may give temporary relief; third, those in which an operation is impossible and unadvisable. He tabulates the following rules: First, the minimum of time should be taken for the operation; second, the tumor, as well as its effected environment, should be removed; third, the earlier the operation the more successful will be the result; fourth, in the case of incipient tumor of the breast the entire organ must be removed.

John Homans discusses the question of the operative treatment of cancer in the female generative organs. Cancer of the ovary is usually secondary to cancerous infections of the other abdominal organs, and is irremovable. Occasionally, however, these organs are the seat of primary cancer. These cases usually occur in elderly women from 50 to 70 years of age, and the tumors are somewhat larger than the fist. In 10 per cent. of the cases operated upon for removal of the ovary with cancer, there has been recurrence in the cicatrix or in the internal organs. Where but one ovary is infected (or even both, for that matter), but the disease has not extended to other organs, it may be removed with a fair prospect of prolonging life for some years and perhaps effecting a cure. As much of the broad ligament and tube as possible should be removed, together with the diseased organ. The most frequent varieties of cancer of the uterus are epithelioma, medullary-carcinoma, and adeno-carcinoma. An operation for removal of cancer of the uterus, of whatever variety, must include the whole organ, including the ovaries, tubes, and broad ligament. In cases in which a thorough radical operation is impossible, the surgeon must be contented with thorough curetting and thorough cauter-

ization, with the thermo- or the Paquelin-cautery. The author prefers the vaginal route, or if the tumor is too large, the combined operation. He therefore considers that the abdomen should be prepared for the operation as well as the vagina, in order that this field may be ready in case it is necessary to invade it.

Cases of adeno-carcinoma almost invariably recover from the operation, and are almost always cured. But the only hope in the other case lies in seeing them before the neighboring structures are involved, so that the whole invaded tissue may be thoroughly extirpated. He has operated upon 16 cases of epithelioma; 6 recovered, and 10 died. One is alive, condition unknown, five years after the operation. One four years after the operation has a slight recurrence; one two years and one month after the operation, is in good health; one, fourteen months, in good health; one four months, and another, three months, after the operation. All the remaining 10 died within a year of the operation, 3 within a week. All were hopeless cases. Of the 6 cases of adeno-carcinoma, 5 are living and well, without recurrence. One died from the effects of the operation. Cancer of the vagina is seldom primary, and should be removed radically as soon as seen. Cancer of the clitoris and urethra, or rather of the meatus, always returns rapidly, and it is of no value to remove these growths except to get rid of a bloody and offensive discharge for a short time. With primary cancer of the labia, the prospect is better.

Operative treatment of cancer of the male genitals is the subject of the paper by Hunter McGuire. He says one case of cancer of the penis will be found in about every 100 cases of cancer, appearing usually in men between 45 and 70 years of age. As soon as the diagnosis is made, radical measures should be advised. Syphilis is the only disease with which it may be confounded. Both patient and surgeon are open to blame for delay; both hope that the ulcer may be syphilitic, and so treat it; but the prognosis is bad if the operation is delayed, and especially if iodide of potash or mercury is used constitutionally. After glandular infection has appeared the prognosis is almost, if not quite, hopeless. In the early stage, complete excision of the ulcer and its hardened base is often sufficient. The recurrence may often be charged to incomplete operations. In cancer of the scrotum remove all of the diseased part. If the glands in the groin are enlarged and indurated, they should be removed, and recurrence should invariably be treated in the same way. Cancer of the testicle usually occurs in persons between 20 and 40 years of age. It is almost unknown in the very young, and is rarely seen over 60. After castration, permanent cures are uncertain. Curling reports 4 cases cured. In 12 of Winiwarters cases only 1 did not have a return; while Kocher reports 6 cases who are alive and without return of the disease at periods varying from one to ten years. Nevertheless, life is prolonged and the patient made more comfortable. When the disease has progressed so far that secondary masses can be felt in the iliac fossa and lumbar region, and especially if cachexia is marked, the operation should not be performed, no matter how urgently the patient may demand it.

Cancer of the prostate is a comparatively rare disease. The symptoms of hard cancer of the prostate are: First, frequency and difficulty of urination, which is greater and more urgent than can be accounted for by the size of the prostate or the amount of residal urine; second, it is difficult and often impossible to introduce a metal sound into the bladder through the displaced urethra; third, pain in the pelvis, often extending to the thighs and legs, is continuous; fourth, blood sometimes precedes or follows the stream of urine; fifth, the prostrate is enlarged and hard as a stone, and the finger in the rectum can often detect induration of one or both of the vesiculæ seminales. Soft cancer is not so readily recognized. The symptoms are: First, rectal tenesmus, blood and mucus in the evacuations, and afterward the bladder symptoms appear. Examination shows a large, soft, elastic tumor springing from the prostrate, pushing back into the rectum, and eventually breaking into that organ and filling the pelvis. In this condition sedative treatment is all that can be done, and possibly it may be necessary to form an

artificial anus by colotomy. No radical operation for the permanent cure of cancer of the prostate has yet been devised Peritoneal drainage should never be attempted. Suprapubic cystotomy and drainage give physiological rest to the bladder and prolong life in these cases. The author does not believe that much is to be gained by any attempt at extirpation when this organ is the seat of cancer.

The modern operative treatment of cancer of the rectum forms the subject of the last of these papers by A. G. Gerster. He considers the matter under the following heads: First, the modern methods of attack employed in extirpation, and the after-treatment; second, preservation of, or substitutes for, the sphincteric function; third, remote sequelæ of these newer methods. After a careful reveiw of the various methods of removal of rectal tumors, the author criticises the various methods. He says almost all have something commendable in them, but none of them is entirely free from objection. Kraske's original operation and Hochenegg's plan deserve the preference in high amputations of the rectum. Zuckerkandl's and Rhen's vaginal proceedures have a limited applicability in favorable cases both for amputation and resection.

Operation upon this region is facilitated by a decided elevation of the pelvis, and this also diminishes hemorrhage. Careful and methodical dissection is preferred. Blunt dissection may be employed where it is feasible, and division of resistent bands by double ligatures may be employed where the former is impossible. Care must be taken not to tear the middle hemorrhoidal artery, for fear of gangrene of the stump or uncontrollable hemorrhage. It makes little difference what instrument is employed in dividing the sacrum.

The after-care of the divided rectum will depend upon whether an amputation or a resection was done. In high amputation. the nutrient vessels of the mesentery must be preserved, lest the entire rectal stump should slough, and this is most difficult in that part of the rectum which adjoins the flexure. Lateral incisions through the peritoneal attachments are permissable, but cutting into the mesenteric line itself will certainly be followed by disaster. Lateral incisions of sufficient length will permit the separation of the gut from the sacrum by the use of the finger-tip; and the higher this detachment is carried, the less tension will be encountered in bringing down and attaching the stump to the upper angle of the external incision, especially when portions of the sacrum have been removed. A few stout silk sutures suffice to anchor the gut in the wound. Where the peritoneal cavity has been invaded, the peritoneal wound should be closed as soon as possible. The recesses of the wound should be packed loosely with iodoform and absorbent gauze. Where it is possible to preserve the sphincter and the lowermost portion of the gut, two portions should be reunited. Whatever fever develops a careful examination of the wound and its recesses should be made—if necessary with the aid of anesthesia. There is decided difference of opinion in regard to the management of the parts after the operation; some authors preferring to act upon the bowels early, others to control them for some time by means of opiates. This must remain a matter of individual preference. The patient, however, should be persuaded to leave the bed, and get about, as early as possible.

Wherever possible, of course, the sphincteric apparatus should be preserved, and in this preservation its nerve supply should be protected by preserving the integrity of the upper three pairs of the sacral motor nerves. At the present time, apparently, the best plan for providing a substitute for the loss of the sphincter, in cases where it cannot be preserved, is that of Czerny, which consists in simple torsion around its own axis and the extremity of the rectal stump, This is usually sufficient to retain the fecal matter until abdominal pressure is exerted by the patient.

In regard to the sequelæ, prolapse has sometimes followed, sometimes the mass even containing small intestine, representing an anal hernia. These conditions can only be corrected by amputation, or by proctopexy or colopexy, the anchoring by suture of the rectum or colon so high, up against the abdominal wall as to preclude the possibility of

prolapse. Procedentia uteri has also been noticed. Sacral fistulæ are the most common and troublesome difficulties. They are usually directly due to defective suture or secondarily due to late ulcerative proctitis following stricture. Stricture is nearly always present and needs constant treatment by soft-rubber bougies. If it is neglected, it will contract and lead to other complications. Many of the sacral fistulæ are readily healed as soon as the rectal structure is disposed of. In the more inveterate cases, however, plastic operations may have to be resorted to. If the fistula is near the anal aperture, the bridge of tissue may be divided, as for ordinary fistula in ano, and the fistular track excised and the wound sutured.

CURRENT LITERATURE REVIEWED.

IN CHARGE OF SAMUEL M. WILSON, M. D.

A Case of Argyria.[1]

The staining of the skin by prolonged use of nitrate of silver is somewhat uncommon now, owing to the lessened use of this drug for nervous diseases,

Sergeant L., a pensioner aged seventy-seven years, was admitted to Madam Steevens' hospital in 1871. The symptoms of locomotor ataxia were marked, and a stick was required in walking. One third grain of nitrate of silver was given three times daily for a fortnight, stopped for a week and resumed, etc. After six weeks of treatment he suddenly left the hospital, taking the prescription and continuing the drug for two years. When seen in 1873 his condition was much improved. The drug was continued at intervals until 1876 when owing to a return of the symptoms, iodide of potash was given for a short time but without benefit, and the silver was then resumed. In 1882 the ataxic symptoms had disappeared, and occassional attacks of pains in the back and loins with nausea were relieved by the temporary use of nitrate of silver. I now noticed that while his general health was excellent, his face, hands, and to a less degree, his body were of a slaty gray color. In 1894 he had been using the drug at intervals for twenty-three years and had taken over two thousand grains in that time.

Like lead, silver is capable of poisoning those working with it, and like it causing symmetrical extensor palsy. The smallest quantity, which has been known to cause argyria, has been stated at four hundred and fifty grains. but seventeen hundred and forty grains were taken in a year by another case before staining appeared.

Repeated local applications have given rise to argyria in some instances, and the case is reported where a large open wound was treated with a one per cent. solution of nitrate of silver, after which the mucous membrane of the cheeks, gums and the under surface of the tongue became of a blue-black color, and the patient died of exhaustion from diarrhœa in eight days.

The case furnishes certain lessons :

1. No precautions can guard against the staining that follows the prolonged use of nitrate of silver.

2. The health of the patient has not suffered in the least from the use of the drug during the long series of years since 1871.

All attempts to produce decolorization have proved practically useless. Large doses of iodide of potassium with mercurial vapor baths have been recommended, but the utility of this method seems doubtful.

To my mind the most important lesson connected with our case has been the marked beneficial effect of nitrate of silver on a patient who presented most, if not all of the prominent symptoms of locomotor ataxia. That this was not a mere coincidence is shown by the return of the symptoms on the cessation of the drug and their repeated relief on resuming its use.

1 W. C. Tweedy, M. D., *The Dublin Journal of Medical Science*, July 1895.

Tha Influence of Ether Narcosis on the Genito Urinary Tract.[2]

The fact that some patients develop unexpectedly, unfavorable symptoms after operations of a trivial character, led us to give particular attention to the secretion from the kidneys and to the condition of the bladder. The urine of cases to be operated on was carefully examined for several days previous to observe the effect of the ether. Israel has shown that in one-third of the cases with normal kidneys chloroform anæsthesia will cause irritation for two or three days.

In sixty-two operative cases, in which the urine was found normal before etherization sixteen remained normal, and in forty-seven abnormalities occurred. In eight cases irritation of the kidneys, ureters and bladder were noted, as shown by albumin, cylinders, renal, ureteral and bladder epithelium. In fifteen cases signs of kidney irritation only were observed, and in twenty-four cases the bladder was affected. The irritation lasted for two or three days only in twenty-one cases, while in the remaining forty-two the urine had not returned to the normal condition at the termination of ten days after the etherization.

The effect of etherization on general tissue metamorphosis, apart from any effect on the kidneys, is shown by the effect on the specific gravity of the urine. In fifty cases it was markedly increased.

2 Drs. John B. Deaver and Carl Frese, *University Medical Magazine*, July, 1895

The necessity of examining the urine of every patient to be anæsthetized is again emphasized by these facts. As careless administration of ether may spoil the result of an otherwise perfect operation, we desire to sound a note of warning to etherizers, who often attend to their responsible duty in a somewhat perfunctory manner.

Two Cases of Bromide Eruption.[3]

It so happened of late that within eighteen months I saw two cases of skin eruption of precisely similar character, the like of which I had never seen during all the previous years.

Mrs. A., 19 years old, married five months, developed shortly after marriage endometritis and salpingitis. For some weeks before I saw her she had been given for the relief of nervousness fifteen or twenty grain doses of bromide of potash several times daily. She was given other drugs and operated on for tubal and uterine disease.

Shortly after stopping the bromide there appeared on the forehead an eruption that looked at first like chicken-pox. This extended over the body—the vesicles changing to sluggish pustules. After the eruption had lasted about four weeks I saw the case, in consultation, and found the patient much emaciated, with a score of prominent, flat, firm, whitish-yellow lesions on the face, which for want of a better name I would call pustules. They had rather a warty look, their surfaces being uneven like that of a raspberry, and they contained very little pus, the contents being cheesy. They varied in size from as large as a pea to a small cherry and were indolent with a small zone of redness around them. Similar discrete lesions were found on the arms and legs, and on each leg was also a single large, irregular, elevated firm lesion, placed with almost absolute symmetry. Where the crusts had fallen from the lesions on the forehead, slightly pitted, faded red scars were left. When a crust was forcibly removed a surface somewhat like that of a raspberry was exposed, showing a number of bleeding points.

The husband of the patient confessed to several attacks of gonorrhœa, but absolutely denied syphilis, but a doubtful diagnosis of syphilis was made. When seen again, ten days later, a number of the old lesions had healed leaving scars and stains, but there were some new lesions on the trunk. On the legs the large lesions had formed irregular, sharply cut, painful ulcers, with exuberant granulations. The general health was improved.

The case was treated with protochloride of mercury internally and ointment of the ammoniate of mercury and mercurial plaster locally, and made a good recovery in a few weeks. Sometime later she called to ask if the red scars could not be effaced. This case puzzled me until I was shown a little child with a few large pea sized lesions on the face and buttocks which resembled impetigo contagiosa. A few weeks later I again saw the case and the lesions had assumed the same form as in the previous case, and also showed some large lesions, with a central depression, resembling molluscum. I and my colleague decided that this was either an unusual form of syphilis or a drug eruption. I looked up the previous treatment of this case and found it had been given bromide of potassium in the usual dose for a child of this age, but as in the first case had taken none for some weeks.

The child wandered into other hands and made a good recovery in a few weeks under arsenic. There was absolutely no syphilitic history. I am convinced that both of these are examples of a rare form of drug eruption, one of the multiform manifestations of bromide intoxication. The peculiar features are the length of time between the stopping of the drug and the appearance of the eruption, the long continuance of the appearance of new lesions after the stopping of the drug, and the character of the eruption. None of these things are against the diagnosis, but rather favor it. Crocker gives as one of the diagnostic symptoms of bromide eruptions that the lesions sometimes do not appear for some days after the drug has been stopped, and continue to appear after ceasing to use it.

[3] George Thomas Jackson, M. D., *Journal of Cutaneous and Genito Urinary Diseases*, November, 1895.

PERISCOPE.

IN CHARGE OF WM. E. PARKE, A.M., M.D.

MEDICINE.

The Post-Mortem Signs of Drowning.

Dr. G. De N. Hough, in a paper read at the Annual Meeting of the Massachusetts Medico-Legal Society, June 11, 1895, thus summarizes: (*Boston Med. and Surg. Jour.*, Vol. cxxxiii, Nos. 17, 18.):—

If we have a particular case under examination what conclusion can be drawn?

From our examination of the exterior we can say "This body has been lying in the water," basing our opinion on the presence of more or less of the following signs:

(1) Peculiar rose-colored or bright-red suggillations.

(2) The order in which the parts have been affected by putrefaction.

(3) Rosy patches on the skin of the inner surfaces of the thighs and front of the thorax.

(4) Cutis Anserina.

(5) Retraction of penis, scrotum and nipple.

(6) The extent of subcutaneous emphysema.

(7) The condition of the epidermis, particularly of the hands and feet, knees and elbows.

(8) The condition of the nails and hair.

(9) The appearance of the various parts of the eyes: (1) The so-called fish-like expression, (2) the phlyctenular eminences and cloudy appearance of the cornea, (3) the sclerotic edema, (4) the change of color of the iris.

(10) Abrasions about the bridge of the nose.
(11) Sand, mud, fragments of water plants, etc., in the nostrils and mouth.
(12) Mud, etc., under the nails.
(13) Fragments of plants, etc., grasped in the hands.
(14) Erosions of various parts of the body.
(15) A fine-bubbled froth at the mouth and nose.

To these will perhaps be added after we have made our internal examination :

(16) Edema of ary-epiglottic folds.
(17) Fluid in the larger air-tubes (and in this fluid very likely foreign particles may be found suspended).
(18) Fluid in the stomach.

Now among all these signs there are none that are incompatible with the cause of death being drowning, and a few of them suggest this quite strongly, or at least suggest that the person was alive when he went into the water. These are :—

(1) Cutis anserina.
(2) Retraction of penis, scrotum and nipple.
(3) Fragments of water-weeds, etc., grasped in the hands.
(4) Froth at the mouth and nose.

In order to be able to say positively, "This person was drowned," a careful consideration of all the internal organs, and in some cases of extraneous circumstances, must also be made.

(1) It appears to me that the absence of any traces of external violence is a very important matter; and if such traces exist, the determination of whether they were inflicted before or after death, and whether they are sufficient to account for the death.

(2) We must consider the general indications of asphyxia, by which I refer to the congestion of solid viscera, the overloading of the whole venous system, the injections and ecchymoses of mucous membranes, the fluid condition of the blood, and the presence of subpleural and subpericardial ecchymoses. In proportion as more of these are present, so much the more positive will our diagnosis be, for we must remember that drowning pure and simple is but one form of asphyxia.

(3) Evidence of chronic or acute disease must not be neglected, for by the presence of such disease the resisting power of our subject will be diminished, and he will require (if I may use an Irishism) less drowning to kill him, and consequently the signs will be less pronounced. Such disease, moreover, may furnish a motive for suicide

(4) Finally, we have certain signs more or less special to drowning which, taken in connection with the signs already referred to, make our diagnosis in many cases positive. Some, perhaps all, of these signs, yet require investigation to thoroughly determine the limits to which their value is confined ; and I shall take the liberty, even in this assemblage of experts, of calling some attention to this part of the subject.

(1) Bilateral lacerations of the sterno-cleido mastoidei and pectorales majores. These are mentioned by Paltauf only ; more observations are needed.

(2) Liquid in the pleural cavities ; lesions to which this might be due being absent. Comparative analysis ought to be made of this fluid, of pleural effusions, and of the liquid that collects in the pleural cavities in consequence of putrefaction.

(3) A fine-bubbled, watery, whitish or rosy froth, non-adherent to the walls of the air-passages in which it is found. Inasmuch as the most eminent authorities are not agreed that this can, by any physical characteristics, be distinguished from the similar froth found in other forms of suffocation and in certain diseases, let us make comparative analyses of all these froths and determine, if we can, any chemical differences that exist between them.

(4) The presence of the drowning fluid in the very small bronchi and the alveoli, with or without suspended foreign substances. The question still at issue here is, How deeply can fluids penetrate into the bronchi after death ?

(5) An infiltration of the pulmonary parenchyma with fluid. The presence of pleuritic adhesions will enable us to distinguish this condition from edema in many cases.

(6) Subpleural extravasations of the drowning fluid mixed with a little blood.

(7) Increase in the volume of the lungs, associated with increase of absolute weight, increase of specific gravity and a peculiar doughy consistence.

(8) Demonstration of hemorrhagic foci where the bronchioles enter the alveoli.

(9) Presence of water in the stomach. The very fact that this may enter after death is still contested, and we only know in regard to the conditions necessary for such entrance that it is favored by pressure, for example, by the body being sunk deep in the water.

(10) Water in the intestine. Unless great pressure is brought to bear on the body, water will not pass from the stomach to the intestine. How much pressure is required and the influence exerted by putrefaction upon this pressure, we have yet to learn.

(11) A special and extreme hydremia of the liver. I cannot believe that it accords with the true scientific spirit to ridicule, as some authors do, the statements of Lacassagne on this point. Careful comparison of the condition in this respect, of livers of persons dead of all sorts of violent deaths would be much more to the point.

(12) An actual dilution of the blood with the drowning liquid.

In conclusion, gentlemen, I wish to say that I have refrained from enumerating my sources of information, with the object of shortening the time required for the reading of my paper. I shall be pleased to give any who wish to consult them all the references at my disposal.

To Preserve Urine.

Dr. Leffman finds chloroform the most satisfactory of the various agents suggested for preserving speeimens of urine. About six or eight drops are added to each fluid ounce, and the mixture well shaken. The excess of chloroform soon collects at the bottom of the bottle Samples so treated will keep for months, even in the hottest weather. Chloroform promptly reduces Fehling's solution. If, therefore, it be desired to test for sugar, the chloroform must he removed by boiling the liquid ; or, better, the bismuth or phemylhydrazin test mnst be used. Chloroform does not interfere with these nor simulate sugar.—*New York Medical Times.*

The Heart in Rheumatic Fever.

Henry Conkling (*Brooklyn Med. Jour*, 1895. IX, p. 409). In severe diseases. the heart, lungs, and brain are affected either as a part of the disease or as a complication ; but the term complication, as applying to cardiac affections in rheumatism, is a misnomer. If rheumatism begins in the knee joint, and later the ankle should become affected, it would not be considered a complication. In the same way rheumatic endocarditis or pericarditis is a part of the disease. The tissues in and about the thorax are similar to the tissues of bony articulations.

At every visit the heart should be examined in a case of rheumatic fever. The author depends on two methods of examination : (1) Palpation, and (2) auscultation. This applies in the present article only to endocarditis and pericarditis By palpation is learned the presence of irritability ; from auscultation, accentuated sounds.

The foregoing symptoms are not found in other fever patients. Endocarditis or pericarditis introduces a new element, either a fullness of the vessels or a swelling of tissue or actual exudation. Any of these can disturb the normal action of the heart. Irritability here means the presence of a foreign body ; accentuation, either in the right or left heart. indicates an attempt to get rid of that same body. The author has found few symptoms of aid in diagnosticating endocarditis or pericarditis.

Pain is frequently never present, but dyspnea may be. Facial expression is not always of aid. Restlessness is sometimes absent. No hint is given by gastric or renal disturbance, In a heart with chronic valvular disease there is a changed nutrition. The irration of the poison in the body, and the fever added. give an extra burden to the heart Rheumatic pleuritis is painful. If effusion occurs it rapidly disappears. A rheumatic pleuritic effusion is apt to have an attending endocarditis. To detect the beginning inflammatory change in or about the heart, repeated examinations must be made by the methods mentioned above. From palpation may be learned :

1. Irregularity of apical impulse.
2. Disturbance of rhythm in diastolic rebound.
3. Friction fremitus.
4. Reduplication of impulse.

In fever-hearts there may be a negative increase of impulse, but rapidity of the heart is not always present, the pneumogastric not having lost its full control. The sweeping movement of the heart when it rebounds, makes a movement against the chest wall, and when this is increased, it indicates a new force. The greater the irritability the greater this movement against the chestwall. Friction fremitus is exocardial or pericardial. It may be felt about the base at the great vessels about the right anterior ventricular surface or toward the apex. If very great at the latter position. it prognosticates adhesive bands. The difference in contraction between the right and left ventricles gives two impulses at different times, where normally two should be present at one time.

From auscultation may be found :

1. Absence of or change in sounds.
2. Friction clicking sounds.
3. Exocardial murmurs.
4. Endocardial murmurs.

In this connection there seldom is accentuation at the apex, but the aortic or pulmonary second sound, one or the other, seldom both. is accentuated. It means some basic pericardial change seldom, so early, endocraditis. Frequently occurring rheumatic inflammatton about the great vessels will cause a click. One or more short sharp explosions are heard. due to the change of position from movement of the inflamed tissue. If the stethoscope is placed lower the clicking sounds disappear and exocardial murmurs are heard, due to pericardiol inflammation. They bear no relation in time to the cardiac sounds. Exocardial murmurs indicate the formation of a "white patch." A swelling of the mitral valve not touching the chords gives rise to a murmurish quality of the first sound, because coaptation is not complete. Endocordial murmurs may be heard about the pulmonary, mitral, or aortic orifice. The inflammatiou rarely goes to the aorta near the valves, and so no extra valvular sounds are heard. Of all the murmurs, the pulmonary, systolic in time, disappears the quickest.

The heart must be watched as is a joint, not caring for arteries or veins, nor for any transmissions. If it becomes diseased it must be treated. If the disease disappear the heart must still be watched. If it contiuue there must be change of treatment. A rheumatic joint is treated to rest and position by the patient. Is a rheumatic heart so treated? Murmurs of the right heart disappear because the right heart governs only a limited circulation. The pulmonary recoil is slight. The aortic and mitral murmurs remain and become permanent, because as soon as the pain in the joints is gone. the patient gets up and goes about, putting extra work upon the heart and movement upon weak tissue. So to prevent valvular disease, keep patients quiet and recumbent until the sounds and rhythm are normal or, at leas , have reached a minimum. Too much stress cannot be laid upon absolute rest. Prevention is better than cure.

Treatment of Urticaria.

M.C. Berliner (*Rev. de Med. et de Chir.*, July 25, 1895) To quiet the troublesome itching resulting from the urticarial lesions, the author makes the following recommendation, which in his hands, has proved the most successful : The weals are moistened with cold water and rubbed for ten to fifteen seconds with a few grains of kitchen salt which adhere to the previously moistened pulp of the index finger. One feels at first a slight burning, followed promptly by an agreeable sensation of coolness, and a notable diminution or even cessation of the itching, after which the papules usually disappear rapidly Upon the area thus treated, one may then apply a little oxide of zinc ointment or rice or almond powder. If the urticaria is extensive, it is better in order to avoid too much irritation of the skin, to apply the salt frictions to successive portions, and not over the whole surface at one time It goes without saying that one should not neglect the necessary modifications of the diet, and if the urticaria be of toxic origin. a purgative should be prescribed, the best of which is calomel. Lukewarm baths may also prove useful.—*Am. Med.-Surg Bulletin.*

Water Tests.

The August issue of the *Iowa Health Bulletin*, published by the State Board of Health, gives a simple test for sewerage contamination or pollution from privy vaults, which can be used by any one. To a glass of water add four drops of a saturated solution of permanganate of potash and let it stand two hours. If decomposing organic matter is present in a dangerous amount the rose color will change to dull yellow, and if there is a large quantity of decomposed organic matter in the water the rose color will in time completely disappear. If it turns paler but still retains a red tinge, it indicates a slighter degree of impurity. Another simple test of the quality of drinking water is to place twelve grains of caustic potash and three grains of permanganute of potassium in an ounce of distiiled water. If to a glass of water one or two drops of the solution imparts a decided color the water is drinkable; but if the solution immediately loses its color and disappears, the water should be rejected for drinking purposes.—*New York Medical Times.*

SURGERY.

The Surgical Treatment of Laryngeal Tuberculosis.

Rettei (*Wien. Klin. Woch.*, Oct. 17th, 1895) holds that on this question statistics do not always form a reliable guide. He relates two cases indicating opposite sources of crror. The first was that of a woman, aged 27, with extensive tuberculosis disease of both lungs, tuberculous infiltration of the interary-tenoid mucous membrane, ulcers on the posterior ends of the vocal cords, and almost com plete aphonia Rettei declined to operate, and symptomatic treatment only was adopted. The laryngeal condition cleared up to a large extent, and the patient recovered her voice almost completely. The improvement persisted for some months; then a fresh laryngeal attack came on with odema of the lungs, proving fatal in ten days. Had this case been operated upon, the temporary cure would no doubt have been put down to the treatment. The other case was that of a man, aged 34, with tuberculosis infiltration at both apices. He had considerable infiltration of the interary tenoid mucous membrane, slight thickening of the right vocal cord, and affection of the epithelium of the right processus vocallis and the adjoining part of the right arytenoid cartilage. Curettage was practised for some days; a spreading ulcer resulted with no tendency to heal. Dysphagia came on with violent paroxysms of coughing, the lung troubles made rapid progress, and the patient died in six weeks from the commencement of the treatment. Here it is, of course, difficult to say what would have been the event if the patient had not been curretted, but Rettei believes that the fatal issue was hastened by the treatment. He considers that operative interference should only be undertaken when the lung process is either not advanced or has been stationary for months, and when the laryngeal affection is more or less localized; there must eieher be a prospect of benefitting the patient's condition, or danger in delay from threatening dyspnœa or dysphagia. Operation is contraindictated in advanced or rapidly advancing lung disease; if there is no imminent danger from the laryngeal condition; if there is high fever, or if the laryngeal disease has so far advanced as to have involved the deep as well as the superficial structures. The first case shows that amelioration may occur in the larynx even when the affection is very severe; the second that surgical interference may at times hasten the morbid process, not only in the larynx but in the lungs as well. The value of statistics is much discounted unless these indications are adhered to; thus some operators record successful results in two-thirds of there laryngeal operations, but include many cases in which curretage was unnecessary. Through such statistics it is easy to be led into operating on unsuitable cases to the danger alike of the patients and the method.

Fatal Fat Embolism after Forcible Straightening of Both Knee-Joints.

Ahrens (*Bruns' Beitr. z. Klin, Chir.*, xiv., 1) reports this case. A woman, aged 53, had ankylosis of both knee-joints in a right angle position. This was to a great extent corrected by continuous extension. Afterwards, under ether, they were completely straightened, very little force being used. Two days later the patient became drowsy, and died the next day. *Post mortem* an extensive fat-embolism of the lungs was found. On the ends of the bones forming the joints, which were in a state of advanced osteoporosis, there were recent crushes and depressions. Two analoguous cases have been reported from Halle and Marburg. It follows that this proceeding is not so devoid of danger as is usually supposed. It is suitable only for recent cases where but little force is necessary (these usually yield to extension), and is altogether contra-indicated in chronic cases where one must suspect fatty degeneration of the bones or muscless

Imbrication or Lap-Joint Method; a Plastic Operation for Hernia.

Andrews describes, in the *Chicago Medical Recorder*, August, 1895, what he thinks may justly be entitled "A New Operatiou for the Radical Cure of Hernia." The earlier operations that were employed failed. the author says, because (1) unless a hernial protrusion be stopped at its point of outlet, namely, the internal ring – no amount of closure below will surely prevent its recurrence. But (2) if it be effectually blocked by the repair of this weak point, no attention need be given to the parts below. Even the extirpation of the sac is not absolutely necessary, excepting that portion lying in the canal. The acceptance of this view would relegate to obscurity all the older literature of the subject up to the time of Basini, including the work of Wood, Heaton, McDowell, Bell, Barker, Nussbaum, Czerny, Sewell, and others. The author states that an extended experience leads him to assert emphatically that the sealed aseptic wound will remain aseptic in this locality and that no other will. Drainage is therefore to be avoided.

An incision is made parallel to Poupart's ligament about three centimetres above it, and carried from near pubis to a point a little above the in-

ternal ring. The superficial epigastric artery is always cut and tied. All steps of this operation must be clean and bloodless. Failure to arrest the hemorrhage during its progress will interfere with the subsequent steps. Directly beneath the skin incision, after complete hæmostasis, another of equal extent is made parallel with the coarse fibres of the external oblique, which are always tendinous here. The lower termination of the incision is near the external ring which the author finds need not be divided in all cases. A scrotal sac can always be drawn up without injuring the external ring, and if the testicle is found to be adherent, it may be returned to its proper position by the same route through which it came out. If the scrotal part of the hernial sac does not readily come up through the ring, it may be cut off at its neck and only the portion in the canal be removed. O'Hara, of Melbourne, has shown that there is no objection to leaving the scrotal sac. As a rule, no difficulty is experienced in stripping out the sac, and as a rule, it is better to remove it, except in cases of congenital hernia. After being cut off, it may be cross sutured at the base and returned to the abdominal cavity without further attention.

The canal being cleared of all structures but the spermatic cord, the latter is lifted gently from its bed and held by retractors during the real preparative work. The posterior wall of the canal, up to and including the internal ring, is narrowed by suturing the conjoined tendon and the transversalis fascia firmly to Poupart's ligament from below upward with a kangaroo tendon suture. The imbrication, which is the special feature of this operation, consists in the incorporation of a strong layer of external oblique aponeurosis into the posterior wall of the canal along with as much conjoined tendon and transversalis fascia as can be found, and the preservation of another flap of the same strong fascia to form the anterior wall. The purpose is to lap joints in uniting the several layers of the wound. The author claims the following advantages for this method:

1. A large strong flap of any needed size to fill internal ring.
2. Triplicate layers of aponeurosis.
3. Interlocking layers giving broad surfaces of union.
4. Shortening of anterior as well as posterior wall of the canal, making them mutually supporting and relieving tension on deep suture.
5. Cord amply protected.—*Therapeutic Gazette*, Oct. 15, 1895.

OBSTETRICS.

Fatal Jaundice in Pregnancy.

Demelin (*Reportoire Univ. d'Obstét. et de Gynéc.*, September 25th, 1895), publishes three cases of marked jaundice during pregnancy, two ending fatally. In the first case jaundice appeared at the fifth month, the temperature was subnormal, no external hæmorrhages were seen, and there was no albuminuria. At the end ot of ten days nervous symptoms set in. Abortion was induced, but the patient died. In the second case icterus continued for several months, and repeated multiple hæmorrhages occured. No albumen was found in the urine. Nerve symptons set in, and death followed spontaneous delivery at the eighth month. The case which recovered was remarkable on account of the presence of albumen and also blood in the urine, a symptom not observed in the fatal cases. There was at first nervous disturbance, indicating the onset of eclampsia, as well as hæmorrhages. The jaundice lasted but a short time, and both mother and child recovered. No fits actually occurred, and all nerve symptons were absent when the jaundice began to clear up. Demelin holds that the uterus should be emptied of its contents as quickly as possible before neuroses sets in.—*Brit. Med.*

Radical Hysterectomy for Cancer.

Clark (*Bulletin of the Johns Hopkins Hospital*, July to August, 1895) believes that this operation has proved unsatisfactory because the broad ligaments are cut too close to the uterus, and the vaginal tissue adjacent to the cervix is not freely removed. The risk of injury to the ureters has been neutralized by Kelly's practice. He introduces bougies into the ureters in all operations where those ducts may be involved. The urethra is first anæsthetised with cocaine, and a ureteral bougie is passed with the aid of a urethral speculum (about No. 8). Clark insists on another precaution. The ureter being made secure during the operation by the presence of a bougie in its canal, the layers of the broad ligament are opened up, and the uterine artery being found, it is dissected out up to its origin and tied. The course of the operation is as follows: (1) catheters are passed into ureters; (2) abdominal incision; (3) upper part of broad ligament is tied off so as to secure the ovarian artery; the vesico-uterine peritoneum is divided horizontally, and the bladder pushed down. Then the layers of the broad ligament are spread apart so as to expose the uterine arteries; (4) the uterine artery is dissected out and tied; (5) the ureter is dissected free in the base of the broad ligament; (6) the remainder of the broad ligament is tied close to the iliac vessels and cut away from its pelvic attachment; (7) the dissection is carried well down below the cancerous area, even though the cervix alone seems to be involved; (8) the same manœuvres, 3 to 7, must be carried ont on the opposite side; (9) the vagina is perforated with sharp pointed scissors; firm traction is made on the uterus with a small volsella so as to pull up the vagina and make tense its walls; then the tissues are tied in small segments, about a third of an inch, each segment being cut as it is tied. (10) Iodoform gauze is inserted from above into the raw space left by the hysterectomy; the vesical and rectal peritoneum are united over the gauze by means of a continual fine silk suture. (11) The pelvic cavity is irrigated and the abdomen closed without drainage. This operation has twice been performed, both patients recovering; but the first is as recent as April 26th this year, and, unfortunately, a cancerous deposit developed two months later in the rectum. The proceedings allows, it is evident, of very free excision of the structures surrounding the uterus.—*Brit. Med.*

Perforation of Uterus by a Degenerate Fibroid.

Richelot and Touche (*Bulletins et Mémoires de la Soc. Obstét. et Gynéc de Paris*, No. 8, 1895) report this case. A woman, aged 43, not pregnant for seven years, had for the first time profuse menorrhagia in May, 1895. Large clots passed. In June the symptoms recurred. Early in July a tumor was discovered by a physician. After rest the free metrorrhagia ceased. Temperature was normal. A fluctuating mass filled the flanks and hypogastrium, reaching as high as the umbilicus. The uterus, on vaginal examination, seemed normal below, but was clearly connected with the tumor. The fornices were free. On opening the abdominal cavity, a soft reddish mass was found firmly adherent to the parietes as low down as the true pelvic cavity. The fundus uteri was exposed, and a perforation about 2 inches in diameter discovered. The spongy mass protruded through the perforation, the edges of which constricted the mass. Internally another part of the mass was found lining the true uterine cavity. All the morbid growth was removed, the uterine cavity cleaned, and the edges of the perforation sutured to the abdominal wall. The cavity formed by the extraction of the uterine portion of the growth was drained. The growth was a degenerate uterine myoma. The cavity was dressed with iodoform.—*Brit. Med.*

NEWS AND MISCELLANY.

A Surprise in Seidlitz.

On the first consignment of Seidlitz powders in the capital of Delhi the monarch became deeply interested in the accounts of the refreshing draught. A box was brought to the king in full court, and the interpreter explained to his majesty how it should be used. Into a goblet he put the twelve blue papers, and having added water the king drank it off. This was the alkali, and the royal countenance expressed no signs of satisfaction. It was then explained that in the combination of the two powders lay the luxury, and the twelve white powders were quickly dissolved and eagerly swallowed by his majesty. With a wild shriek that will be remembered while Delhi is numbered among the kingdoms the monarch rose, staggered exploded, and in his full agonies screamed, 'Hold me down!" then, rushing from the throne, fell prostrate on the floor. There he lay during the long-continued effervescence of the compound, spirting like ten thousand pennyworth of imperial pop, and believing himself in the agonies of death.—*London Tid-Bits*

The Code.

In his address to the graduating class of the University of Pennsylvania, Prof. H. C. Wood lays down the code of medical ethics as follows:

1. To consider the doctor as a member of your own family, having an inherent right to your medical services; but to remember yourself not to abuse this right.

2. To consider any discovery or any invention you may make as belonging not to yourselves but to the general profession.

3. Never in any way to laud your own medical skill or to attempt to supplant in public or private estimation one of the medical household.

4. To join yourself as soon as may be to the incorporated companies of your fellows for scientific and social intercourse, and for the cultivation of that professional conscience which often binds men more closely than their personal sense of right and wrong.

5. Through good and ill report to stand by members of your own profession, unless they be guilty of moral evil.—*Boston Med. and Surg. Journal.*

Medical Students at Philadelphia.

The following estimate has been made of the number of medical students attending the several schools of Philadelphia, together with the number in attendance during the last session:

	'95-96.	'94-95.
University of Pennsylvania . . .	900	865
Jefferson Medical College . . .	725	700
Medico-Chirurgical College . . .	350	225
Hahnemann Medical College . .	285	260
Women's Medical College . . .	200	175
Philadelphia Polyclinic	150	120
	2610	2345

An unfortunate error in a New Haven (Ct.) drug store—the sale of aconite by mistake for cholera mixture,—with fatal consequences, and the coroner's inability to determine which of two clerks is accountable, promises to bring about an agitation for the amendment of the present pharmacy law in that State, so that the identity of the drug clerk selling medicine cannot be concealed without a violation of the law. It is suggested that each clerk who sells a parcel of medicine shall be required to place thereon a new label, and that this label, besides stating the name of the contents of the bottle or box, shall also bear the name or initials of the clerk making the sale. It is proposed also to enact laws with the intention of reducing mistakes in compounding to a minimum by requiring that each mixture compounded shall be checked or certified to by a second person, and bear the signature or initials of both. The checking of prescriptions prevails in every well regulated pharmacy, and no objection can be urged against rendering it mandatory by law.—*Bulletin Pharmacy.*

Holiday Excursion Rates on the B. & O.

In pursuance of its usual policy, the Baltimore & Ohio Railroad Co. will sell Excursion tickets between all stations on its lines east of the Ohio River for all trains December 21, 22, 23, 24, 25, 31 and January 1st, valid for return journey until January 7th, inclusive, at reduced rates